

Course Profile

Introduction to Information Technology in Business

Grade 9 or 10
Open

• *for teachers by teachers*

Course Profiles are professional development materials designed to help teachers implement the new Grade 9 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 and Training. 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

Introduction to Information Technology in Business, Grade 9 or 10, Open

Identifying Information:

School:

Department:

Course Title:

Grade:

Course Type:

Ministry Course Code:

Credit Value:

Course Developer(s):

Development Date:

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Description

This course introduces students to the use of information technology in a business environment. Students will learn how to use information technology in a work environment, perform electronic research, communicate electronically, and use common business software. They will also explore possible future occupations in information technology.

Rationale

As Catholics we believe that human beings have been chosen by God to help transform the universe. Today's rapid advances in information technology and business offer our students an unprecedented chance to fulfill that role. Catholicity has not been and is not inimical to technology or to business. In the right hands, minds and hearts, information technology in business will help us to sustain and to build a culture of life. Therefore, our students require the skills, knowledge and attitudes necessary to function effectively in such a world. Few will disagree that we are living in a complex society with complex informational needs. Governments, businesses and enterprises of all descriptions have turned to the computer as a means to increase their productivity and stay competitive. If our students are to be participants in those organizations, it is essential that they have an understanding of E-commerce and, in a larger sense, E-culture. Students will need to not only access and analyse information garnered through electronic sources, they will also need to synthesize and combine their own experiences with that information in order to produce knowledge.

Most students today already inhabit an environment that is increasingly characterized by the use of computers - at home, school and work. To maximize student potential in such an environment, students must possess a general understanding of information technology plus specific user-level knowledge in the most common business professional software programs. At a minimum, those programs should include word-processing, spreadsheet, database, presentation, communication, and researching software. Since the best way to introduce and extend student expertise in computing is to 'learn by doing', a good proportion of their work should involve 'hands-on' activities. These activities will, of course, have immediate and relevant application to their current 'job', that of being a student in school. Student success in this course should, therefore, underpin success in their current endeavours and prepare them for future success as they enter college or university, post-secondary technical education, or the workforce directly.

Information technology in business affects the daily lives of all Canadians whether they work or not, whether they are well or sick, whether they spend or save, invest, travel, or play. It influences jobs, incomes, opportunities for public and personal enterprise and the overall wealth of not only our society but that of the entire globe. Information technology in business has the potential to bind individuals and communities together as it fosters compassion, knowledge and wealth. Information technology in business can raise the standard of living and the quality of life of all people and can

have a positive impact on the natural environment that we are all called upon by God to steward and to preserve for future generations.

How This Course Supports the Ontario Catholic School Graduate Expectations

While we live in a time of rapid technological change, technology, itself, is not new. The history of science and technology is inextricably linked to the pilgrim story of our faith as individuals and in community as church. They are not nor ever have been mutually exclusive. Technology is simply the physical embodiment of expert methods that can be easily transferred from one person to another or from community to community. As such, its understanding, development and use open vast potential for Ontario Catholic school students to help build a culture that supports life in all of its dimensions: body, mind and spirit. Activities in this course reflect our concern for the dignity and worth of all human beings and provide ample opportunities to develop and to practise not only the knowledge and skills related to technology but also the attitudes and actions that we value as a Catholic community. (See Appendix I)

Unit Titles (Time and Sequence)

Unit 1	E-Business: Transforming Our Communities Using Information Technology	18.75 Hours
Unit 2	Productivity Tools: Utilizing the Power of Business Software	37.5 Hours
Unit 3	Knowledge Management: Accessing the Global Network of People and Information	32.5 Hours
Unit 4	Business Communication: Presenting Ideas Using the New Media	21.25 Hours
Unit 5	Career Dynamics: Positioning Oneself for Success	<i>Delivered concurrently</i>

Unit Organization

Unit #1: E-Business: Transforming Our Communities Using Information Technology

Time: 18.75 hours

(Concurrent Delivery of Unit #5: Career Dynamics)

Description: In this unit students will develop comprehension in several areas of IT as they relate to electronic business and commerce. Students will learn key terminology, desktop and information management techniques and will demonstrate an understanding of computer architecture, system design and infrastructure. Students will be introduced to the Internet and its use in research.. By exploring contemporary issues (e.g., ergonomics, health and safety, security) students will appreciate the impact that the electronic culture has on the quality of life and work.

Ontario Catholic Graduate Expectations: CGE3C, 4A, 4B, 4C, 4F, 4G, 5B, 5E, 5G, 7A, 7B, 7F, 7I, 7J

Strand(s): Information Management; Electronic Communication; Electronic Research and Ethical Issues

Overall Expectations: IMV.01X, 02X, 03X, 04X; ECV.03X

Specific Expectations: IM1.01X, 02X, 03X; IM2.01X, .02X, .03X, .04X, .05X,; IM3.01X, .02X, .03X, .04X, .05X; IM4.01X, .02X, .04X, .05X; EC2.03X; EC3.01X; EE2.01X

Unit #2: Productivity Tools: Utilizing the Power of Business Software

Time: 37.5 Hours

(Concurrent Delivery of Unit #5: Career Dynamics)

Description: In this unit students will explore the application of commonly-used business software. Students will learn relevant terminology, develop skills in using software, and apply learned skills to specific business simulated exercises. Students will demonstrate an understanding of how IT allows them to work more effectively in a process and solutions-oriented business environment.

Ontario Catholic Graduate Expectations: CGE1D, 2B, 2C, 2D, 4B, 4F, 5A, 5E, 5F, 5G, 7B, 7J

Strand(s): Information Management; Software Applications; Electronic Communication; Electronic Research and Ethical Issues

Overall Expectations: IMV.01X, .04X; SAV.01X, .02X, .03X; ECV.02X; EEV.03X

Specific Expectations: IM1.01X, .03X; SA1.01X, .02X, .03X; SA2.01X, .02X, .03X; SA3.01X,.02X, .03X; EC2.02X; EC3.01X, .02X, .03X, .04X; EE3.04X

Unit #3: Knowledge Management: Accessing the Global Network of People and Information

Time: 32.5 Hours

(Concurrent Delivery of Unit #5: Career Dynamics)

Description: In this unit students will learn how to explore and use the resources of the Internet. Students will learn how to search, collect, analyse, validate, and synthesize data permitting them to make pragmatic and ethical business decisions. Students will demonstrate an understanding of the Internet's limitless potential to link data, information, and people in order to build knowledge.

Ontario Catholic Graduate Expectations: CGE1D, 2C, 3B, 3C, 3D, 3E, 4A, 4F, 5G, 7B, 7I
Strand(s): Information Management; Software Applications; Electronic Communication; Electronic Research and Ethical Issues

Overall Expectations: IMV.01X; SAV.02X; ECV.02X, .03X; EEV.01X, .02X, .03X
Specific Expectations: IM1.01X, .03X; IM2.04X; IM3.04X, .05X; IM4.03X, .04X, .05X;
SA2.01X, .02X, .03X; SA3.03X; EC2.02X, .03X, .04X; EC3.01X, .02X, .03X, .04X, .05X;
EE1.01X, .02X, .03X, .04X, .05X; EE2.01X, .02X, .03X, .04X; EE3.01X, .02X, .03X, .04X

Unit #4: Business Communication: Presenting Ideas Using the New Media

Time: 21.25 Hours

(Concurrent Delivery of Unit #5: Career Dynamics)

Description: In this unit students will explore the power of the new media, electronic presentation tools, web-pages, and e-mail to communicate in business. Students will develop skills related to the selection of the most appropriate tool and best format given a specific project, operation, plan or proposal. In their communications, students will demonstrate respect and appreciation for the diversity of the global environment.

Ontario Catholic Graduate Expectations: CGE2C, 2D, 4B, 4C, 4F, 5A, 5F, 5G, 7B, 7I

Strand(s): Information Management; Electronic Communication; Electronic Research and Ethical Issues

Overall Expectations: IMV.01X; SAV.02X; ECV.01X, .02X; EEV.03X

Specific Expectations: EC1.01X, .02X, .03X, .04X; EC2.01X, .02X, .03X, .04X; EC3.01X, .02X, .03X, .04X, .05X; EE3.01X, .03X, .04X

Unit #5: Career Dynamics: Positioning Oneself for Success

Time: Concurrent Delivery

(The delivery of this unit is ongoing and concurrent with the other four units)

Description: In this unit students will learn how to plan for participation in the working world of E-business that is increasingly characterized by innovation, project-based team work, entrepreneurship, change, and the challenge of life-long learning. Students will learn the intrinsic value of work and will discover techniques to realize their potential for dignity, self-respect, and success.

Ontario Catholic Graduate Expectations: CGE1D, 1G, 3C, 3D, 3E, 4A, 4B, 4D, 4E, 4G, 5B, 5C, 5D, 5H, 7B

Strand(s): Career Opportunities

Overall Expectations: COV.01X, .02X, .03X

Specific Expectations: CO1.01X, .02X, .03X, .04X; CO2.01X, .02X, .03X, .04X, .05X;
CO3.01X, .02X, .03X

Teaching/Learning Strategies	Assessment Strategies	Resources
<p>Report/Presentation Deliver a presentation relating to a business topic using various media</p> <p>Applications Prepare business documents</p> <p>Produce an “end product” which involves multi-tasking and necessitates a collaborative effort.</p> <p>Research Gather and interpret data from a variety of media Assess bias, propriety and source validity of electronically-gathered data. Consider legal or ethical issues relevant to E-business</p> <p>Independent Study Utilize data to build on existing knowledge</p> <p>Illustration Draw schematics to represent the operation of computer systems</p> <p>Draw diagrams to represent the flow of data across networks</p> <p>Exploration/Discovery</p> <p>Case Study</p> <p>Conferencing Communicate with other students and business professionals using collaborative technologies</p> <p>Jigsaw Specialized group learning followed by home group sharing</p>	<p>Reflection Peer Assessment Self Assessment Learning Logs (e.g., Career Information) Technical Journal</p> <p>Observation Informal teacher observation Formal teacher observation</p> <p>Conferencing Teacher-student Distance Conferencing (peer to peer/peer to professional)</p> <p>Paper and Pencil Tests</p> <p>Diagnostic Tests Quizzes Summative Tests (Unit Test, Final Examination) Technical Journal Audit</p> <p>Performance Assessment</p> <p>Presentations Exhibitions (external assessment) Demonstrations Role simulations (e.g., Office Manager, Lab Monitor) Formal written assignments (e.g., Field Study Reports) Projects/Product Delivery Portfolios *</p> <p>Assessment Tools will include:</p> <p>Observational Checklists Rubrics/Rating scales Marking Schemes Exemplars Anecdotal comments</p>	<p>See course, unit and activity resources.</p>

***Portfolio**

Students will set up a portfolio in which they will add their exemplary work as the course progresses. The portfolio, although evaluated throughout, will be examined for completeness at the end of the course. It would be useful to provide students with a portfolio checklist to help them keep track of the contents. (See Appendix III: Student Manual)

Rationale for a Balanced Assessment/Evaluation Plan

Student assessment and evaluation methods for this course reflect authentic practices found in the working world. Opportunities for assessment are frequent and are designed to guide the student toward success and to honour achievement. Reflective instruments are provided to help students control and plan their learning. Formal and informal observational techniques and conferencing help clarify student thinking and provide evidence of student progress. Tests help students to confidently build an inventory of knowledge and skills that subsequently are drawn upon to create a product or deliver a presentation. Completed student products and presentations will be evaluated by the teacher in relation to the provincial standards.

How Student Achievement Will Be Evaluated to Determine Final Course Mark

Assessment instruments are designed to provide information about student achievement. Learning skills, effort, punctuality and recorded absences are reported separately and are not considered in the determination of the percentage grade. Assessment instruments may appear in more than one evaluation category. The final grade will be determined using the weighting below as a guideline to reflect the student's most consistent performance level. The evaluation will be based on testing, product development and product delivery using a variety of media. Factored into this evaluation is the degree to which a student uses both independent and collaborative product development strategies.

Final Course Grade

Final Evaluation

Formal exam: Written and Application	20%
Final Course Project (e.g., Portfolio)	10%

Term

Knowledge and Understanding	15%	
Unit Tests		
Quizzes		
Lab Exercises		
Thinking/Inquiry and Problem Solving	20%	
Assignments		
Unit Projects		
Independent Study (Career)		
Lab Exercises		
Communication	15%	
Lab Exercises		
Presentation		
Application/Productivity	20%	<u>70%</u>
		<u>100%</u>

Additional Course Information

Accommodations

Teachers should read through exceptional students' Individual Educational Plans (IEPs) and consult with the appropriate teachers. By doing this, teachers will be aware of, and can implement, prescribed modifications and exceptionalities.

In order to enhance the learning experience of ESL and exceptional students, following are some strategies that could be applied throughout course activities.

- Have students work with classroom partners, peer tutors or classmates who share the same linguistic background;
- Extensive student/teacher conferencing;
- Very capable students can act as lab assistants;
- Provide a list of terminology (possibly simplified) before an activity begins;
- Incorporate task modifications (e.g., fewer/more web sites, sources, informational items);
- Handouts may be modified to incorporate a larger, easy-to-read font;
- Handouts may be modified (simplified/advanced) in terms of language and content provided;
- Checklists (e.g., manual/notebook, skill development) may be tailored to meet the needs of individual students;
- Use of process marks so students who complete work can be successful despite a weak end product being submitted.
- For students with physical disabilities there is commercially available software and hardware that address specific needs.

Resources

Internet

Note: All web sites should be previewed in advance by the teacher.

TCDSB BUSINESS STUDIES WEB PAGE – This site provides links to curriculum resources, careers, conferences, print media, professional associations, postsecondary institutions and businesses.
<http://www.tcdsb.on.ca/external/departments/business/index.html>

ECEDWEB -This is an American site that provides a process for students evaluating world wide web sites and internet information.
<http://ecedweb.unomaha.edu/teachsug.htm>

CPM NET THE TECHNOLOGY NETWORK -This site provides articles about infrastructure and has many links to other sites dealing with IT.
<http://www.networkcomputing.com/918/918ws1.htm>

EVERYTHING E-MAIL -E-mail etiquette.
<http://everythingemail.net/glossary.html>

E-BUSINESS - This site is a guide as to what happens when you combine the broad reach of the Internet with the vast resources of traditional information technology systems.
<http://www.tcdsb.on.ca/external/departments/business/info-p6.html>

WEBER STATE UNIVERSITY - This site reviews many issues related to E-Commerce including a definition, current modes, advantages and weaknesses.
<http://www.weber.edu/ist/itfm/ht-ec2.htm>

BUSINESSLINK TECHNOLOGY GROUP INC.

This site includes some demographics on the size and usage of the Internet. This information may be of some help in establishing effective marketing plans for use of the WWW in your organization
<http://www.blgt.com/demograf.html>

MS ACCESS TUTORIAL – UNIVERSITY OF BRITISH COLUMBIA -This site provides Microsoft Access tutorials: on-line version, print-only version, support files, self-contained packages and frequently asked questions.

<http://mis.commerce.ubc.ca/~brydon/MSAccess/tutorials.html>

MICROSOFT K-12 EDUCATION - This site provides classroom resources, lessons and activities, software tutorials, free tools and downloads for Office 97.

<http://www.microsoft.com/education/curric/office97>

IN AND OUT OF THE CLASSROOM WITH MICROSOFT PUBLISHER

This site will assist you in creating a web site with MS Publisher 98.

<http://www.microsoft.com/education/curric/pub98/website.htm>

SCHOOL NET -This site is dedicated to serving the interests of students, parents and educators regarding every facet of education, from kindergarten through graduate school.

<http://www.schoolnet.org>

ITTOOLS – This site provides you with an on-line computing dictionary

<http://www.itools.com/research-it>

COMPUTING CANADA NEWSPAPER/MAGAZINE

<http://www.plesman.com/cc/artind.htm>

TORONTO STAR TECHNOLOGY

<http://www.thestar.com/editorial/technology/index.html>

THE GLOBE AND MAIL

<http://www.theglobeandmail.com/index.html>

THE NATIONAL POST

<http://www.nationalpost.com/news.asp?s2=national>

MACLEANS

<http://macleans.ca>

EDUCATION WORLD – Fourteen great activities for the first days of school.

<http://www.interserf.net/mcken/teacher.html>

INNOVATIVE TEACHING

<http://www.interserf.net/mcken/teacher.htm>

CANOE – Canadian Newsstand and Information

<http://www.canoe.com/>

MAIN FUNCTION -is a resource of information for teachers and students of computer programming and the Internet. Brought to you by Microsoft and Knowlton & Associates, Inc.

<http://www.mainfunction.com/index.html>

PEDAGONET – This site offers an innovative search engine which facilitates the exchange of learning resources.

<http://www.pedagonet.com/>

PREMIER TRACKS – This site offers a collection of K-12 Web-Based lessons for a variety of subject areas created by SCR*TEC's TrackStar.

<http://4teachers.org/premier/>

TEACHER TALK – This site provides a discussion area for teachers related to technology instruction.

<http://www.mightymedia.com/ttalk/index.asp>

IGC WOMENSNET – WomensNet supports women's organizations worldwide by providing and adapting telecommunications to enhance their work.

<http://www.igc.org/igc/womensnet/>

STUDY WEB – This site provides an extensive research library of annotated links in 25 categories.

<http://www.studyweb.com/>

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Heide, Ann and Stilborne, Linda. The Teacher's Guide to the Internet, Trifolium Books Inc.

<http://www.pubcouncil.ca/trifolium>, 1996.

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OUTPUT - Educational Computing Organization of Ontario magazine.

Pyne, Sandra and Tuck, Allene. ed. Oxford Dictionary of Computing for Learners of English, London: Oxford University Press, 1996.

The Connected Learning Community , Technology Roadmap, A Comprehensive Guide to Planning and Implementing, Computer Technology in K-12 Schools, Microsoft Corp. 1998.

The Waterloo County Board of Education, Cooperative Learning: A Resource to Small Group Learning K-OAC, Waterloo: The Waterloo County Board of Education, 1992.

Catholic Social Justice Documents:

Center for Social Justice and Global Awareness. "The Conditions of Labour" (Rerum Novarum), "The Reconstruction of the Social Order" (Quadragesimo Anno), "Christianity and Social Progress" (Mater et Magistra), "Peace on Earth" (Pacem in Terris) and The Church in the Modern World (Gaudium et Spes). <http://www.neosoft.com/~csjga/docs.htm>

OSS Policy Applications

The Ontario Curriculum, Grades 9 and 10: Business Studies, 1999

Course Evaluation

Student Survey

Appendix I

Ontario Catholic School Graduate Expectations

The graduate is expected to be:

A Discerning Believer Formed in the Catholic Faith Community who

- CGE1a** -illustrates a basic understanding of the **saving story** of our Christian faith;
- CGE1b** -participates in the **sacramental life** of the church and demonstrates an understanding of the centrality of the Eucharist to our Catholic story;
- CGE1c** -actively reflects on **God’s Word** as communicated through the Hebrew and Christian scriptures;
- CGE1d** -develops attitudes and values founded on Catholic **social teaching** and acts to promote social responsibility, human solidarity and the common good;
- CGE1e** -speaks the **language of life**... “recognizing that life is an unearned gift and that a person entrusted with life does not own it but that one is called to protect and cherish it.”
(Witnesses to Faith)
- CGE1f** -seeks intimacy with God and celebrates **communion** with God, others and creation through prayer and worship;
- CGE1g** -understands that one’s purpose or **call in life** comes from God and strives to discern and live out this call throughout life’s journey;
- CGE1h** -respects the **faith traditions**, world religions and the life-journeys **of all people of good will**;
- CGE1i** -integrates faith with life;
- CGE1j** -recognizes that “sin, human weakness, conflict and forgiveness are part of the human journey” and that the cross, the ultimate sign of forgiveness is at the heart of **redemption**. (Witnesses to Faith)

An Effective Communicator who

- CGE2a** -listens actively and critically to understand and learn in light of gospel values;
- CGE2b** -reads, understands and uses written materials effectively;
- CGE2c** -presents information and ideas clearly and honestly and with sensitivity to others;
- CGE2d** -writes and speaks fluently one or both of Canada’s official languages;
- CGE2e** -uses and integrates the Catholic faith tradition, in the critical analysis of the arts, media, technology and information systems to enhance the quality of life.

A Reflective and Creative Thinker who

- CGE3a** -recognizes there is more grace in our world than sin and that hope is essential in facing all challenges;
- CGE3b** -creates, adapts, evaluates new ideas in light of the common good;
- CGE3c** -thinks reflectively and creatively to evaluate situations and solve problems;
- CGE3d** -makes decisions in light of gospel values with an informed moral conscience;
- CGE3e** -adopts a holistic approach to life by integrating learning from various subject areas and experience;
- CGE3f** -examines, evaluates and applies knowledge of interdependent systems (physical, political, ethical, socio-economic and ecological) for the development of a just and compassionate society.

A Self-Directed, Responsible, Life Long Learner who

- CGE4a** -demonstrates a confident and positive sense of self and respect for the dignity and welfare of others;
- CGE4b** -demonstrates flexibility and adaptability;
- CGE4c** -takes initiative and demonstrates Christian leadership;
- CGE4d** -responds to, manages and constructively influences change in a discerning manner;
- CGE4e** -sets appropriate goals and priorities in school, work and personal life;
- CGE4f** -applies effective communication, decision-making, problem-solving, time and resource management skills;
- CGE4g** -examines and reflects on one's personal values, abilities and aspirations influencing life's choices and opportunities;
- CGE4h** -participates in leisure and fitness activities for a balanced and healthy lifestyle.

A Collaborative Contributor who

- CGE5a** -works effectively as an interdependent team member;
- CGE5b** -thinks critically about the meaning and purpose of work;
- CGE5c** -develops one's God-given potential and makes a meaningful contribution to society;
- CGE5d** -finds meaning, dignity, fulfillment and vocation in work which contributes to the common good;
- CGE5e** -respects the rights, responsibilities and contributions of self and others;

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- CGE5f** -exercises Christian leadership in the achievement of individual and group goals;
 - CGE5g** -achieves excellence, originality, and integrity in one's own work and supports these qualities in the work of others;
 - CGE5h** -applies skills for employability, self-employment and entrepreneurship relative to Christian vocation.

A Caring Family Member who

- CGE6a** -relates to family members in a loving, compassionate and respectful manner;
- CGE6b** -recognizes human intimacy and sexuality as God given gifts, to be used as the creator intended;
- CGE6c** -values and honours the important role of the family in society;
- CGE6d** -values and nurtures opportunities for family prayer;
- CGE6e** -ministers to the family, school, parish, and wider community through service.

A Responsible Citizen who

- CGE7a** -acts morally and legally as a person formed in Catholic traditions;
- CGE7b** -accepts accountability for one's own actions;
- CGE7c** -seeks and grants forgiveness;
- CGE7d** -promotes the sacredness of life;
- CGE7e** -witnesses Catholic social teaching by promoting equality, democracy, and solidarity for a just, peaceful and compassionate society;
- CGE7f** -respects and affirms the diversity and interdependence of the world's peoples and cultures;
- CGE7g** -respects and understands the history, cultural heritage and pluralism of today's contemporary society;
- CGE7h** -exercises the rights and responsibilities of Canadian citizenship;
- CGE7i** -respects the environment and uses resources wisely;
- CGE7j** -contributes to the common good.

Appendix II

Coded Expectations: Introduction to Information Technology in Business, Open Grade 9 or 10

STRAND: INFORMATION MANAGEMENT

Overall Expectations:

- IMV.01X demonstrate an understanding of the information technology terms used in business;
- IMV.02X explain key infrastructures relevant to information technology;
- IMV.03X manage an information technology work environment;
- IMV.04X electronically manage personal data and computer files.

Specific Expectations:

Terminology:

- IM1.01X define key information technology terms (e.g., Internet, Intranet, Extranet, infrastructure, syntax, work environment);
- IM1.02X explain the concept of information technology;
- IM1.03X use current information technology terminology appropriately.

Infrastructures:

- IM2.01X explain the functions of the hardware components of a computer workstation;
- IM2.02X explain how a variety of operating systems work;
- IM2.03X explain the use of a variety of peripheral devices (e.g., printers, scanners, video and digital cameras);
- IM2.04X differentiate between stand-alone and networked environments;
- IM2.05X describe the environments to which stand-alone systems and networks are best suited (e.g., home office, school, multinational company).

Work Environment:

- IM3.01X demonstrate understanding of the importance of managing an ergonomically correct work environment;
- IM3.02X explain information technology health and safety issues (e.g., musculoskeletal injuries, eye strain, radiation from monitors);
- IM3.03X explain the importance of keeping information secure and confidential;
- IM3.04X describe the importance of security systems (e.g., passwords, encryption, login), in stand-alone, LAN, and WAN environments;
- IM3.05X demonstrate appropriate interpersonal skills when interacting with colleagues and peers in an information technology work environment (e.g., keeping passwords confidential, respecting privacy of information).

File Management:

- IM4.01X describe the desktop elements and functions of a computer environment (e.g., icons, menus, toolbars, folders);
- IM4.02X demonstrate an ability to arrange personal folders and files in a logical and useful manner that is easily understood by others;
- IM4.03X create (e.g., design, edit, manage) an electronic address book;

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- IM4.04X analyse the potential impact of computer viruses on computer systems on computer systems and files;
- IM4.05X explain how anti-virus software applications in a business environment enhance system security.

STRAND: SOFTWARE APPLICATIONS

Overall Expectations:

- SAV.01X demonstrate the skills required to enter data by using appropriate keyboarding techniques;
- SAV.02X demonstrate the use of basic functions and features of common business software;
- SAV.03X produce documents that meet basic business standards and formats.

Specific Expectations:

Data Entry Skills:

- SA1.01X demonstrate the ability to input data effectively;
- SA1.02X demonstrate an understanding of the importance of accuracy when entering data (e.g., consider challenges facing voice recognition)
- SA1.03X use correct keyboarding techniques (e.g., proper posture, correct fingering, proper wrist position).

Application Software:

- SA2.01X explain the use of common business software (e.g. word processing, database, spreadsheet, graphic, desktop publishing, web page software);
- SA2.02X use the common business software basic functions (e.g., create, save, update, print) and features (e.g., edit tools, fonts, justification, format tools, columns, menus, design and graphic tools, formulas, hyperlinks);
- SA2.03X follow written and oral instructions regarding the use of software applications (e.g., help menus, wizards, manuals).

Business Documents:

- SA3.01X demonstrate an ability to select the most appropriate software applications for creating a particular business document (e.g., report requiring a word processor, spreadsheet, graphic tool);
- SA3.02X produce correctly formatted business documents (e.g., business correspondence, reports, advertisements, fax cover pages) from printed, handwritten, and revised copies;
- SA3.03X use electronic references effectively (e.g., dictionaries, thesauri, grammar checks, spell checkers).

STRAND: ELECTRONIC COMMUNICATION

Overall Expectations:

- ECV.01X demonstrate an ability to use electronic software to create presentations;
- ECV.02X use electronic tools to communicate effectively with others;
- ECV.03X demonstrate an understanding of the legal issues relating to electronic communication.

Specific Expectations:

Electronic Presentation:

- EC1.01X describe the basic functions of presentation software commonly used in business (e.g., text objects, quick art, chart/graphic tools, slide editor/sorter/lists);
- EC1.02X explain the purposes of presentation tools;
- EC1.03X select the presentation tools that are most appropriate for an assigned purpose and target audience (e.g., slides, animation, music);

EC1.04X create an electronic presentation (e.g., kiosk display, assembly presentation, class project).

Electronic Communication Tools:

EC2.01X describe the tools used to communicate electronically in business (e.g., fax, e-mail, voice mail, bulletin board, discussion group, the Internet, Intranet, Extranet);

EC2.02X compare a variety of electronic communication tools in terms of their uses and benefits to business;

EC2.03X explain how e-mail is transmitted through the Internet and Intranet;

EC2.04X demonstrate an ability to use electronic communication tools (e.g., e-mail, voice mail, the Internet, Intranet, voice recognition) effectively by using acceptable syntax and terminology.

Legal Issues:

EC3.01X describe ways in which recent changes in information technology have had a positive and/or negative impact on business, working conditions and other aspects of peoples' lives (e.g., access to information, to global trade, to employment; increase in violence, racial issues, harassment, unemployment);

EC3.02X communicate with people in other cultures, and demonstrate an understanding of their communication customs (e.g., social interactions, political sensitivities, jargon);

EC3.03X apply acceptable communications protocol in internal and external electronic communication;

EC3.04X investigate and describe legal issues related to electronic communication;

EC3.05X describe the major issues related to security on the Internet, Intranet, Extranet, and e-mail (e.g., privacy, credit card use, use of firewalls).

STRAND: ELECTRONIC RESEARCH AND ETHICAL ISSUES

Overall Expectations:

EEV.01X use a variety of electronic media to find relevant information;

EEV.02X analyse the various uses of the Internet in a business environment;

EEV.03X analyse the ethical issues concerning use of electronic information.

Specific Expectations:

Electronic Research:

EE1.01X identify the forms and applications of electronic media that can be used to gather information (e.g., CD-ROMs, the Internet, search engines);

EE1.02X describe the function of search engines;

EE1.03X use a variety of search engines to locate web sites;

EE1.04X access a variety of electronic media (e.g., web sites, newsgroups, reference CD-ROMs) to gather information for specific purposes;

EE1.05X demonstrate an understanding of the criteria required to evaluate electronic media for usefulness, validity, bias, and confidentiality.

The Internet in Business:

EE2.01X explain how a stand-alone computer is connected to the Internet;

EE2.02X compare the services provided to businesses by a variety of Internet Service Providers;

EE2.03X explain the ways in which organizations can use the Internet and Intranet;

EE2.04X compare the ways the Internet and Intranet are used in a variety of organizations.

Ethical Issues:

EE3.01X explain the purpose and content of an Internet acceptable use agreement;

EE3.02X determine criteria to evaluate web sites in terms of validity, bias and usefulness;

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- EE3.03X analyse the ethical implications of posting, accessing and transmitting information in various digital formats (e.g., the Internet, bulletin boards, fax);
- EE3.04X apply copyright rules, regulations and conventions to reference material obtained from electronic sources.

STRAND: CAREER OPPORTUNITIES

Overall Expectations:

- COV.01X describe career opportunities related to information technology;
- COV.02X assess their information technology skills and competencies;
- COV.03X demonstrate an understanding of high school information technology programs designed for use in secondary schools.

Specific Expectations:

Career Opportunities:

- CO1.01X identify occupations that require an understanding of information technology;
- CO1.02X explain the skills and competencies needed to work in an information technology environment;
- CO1.03X identify local employers that may require employees who have a knowledge of information technology;
- CO1.04X summarize current job advertisements that require information technology skills and education;

Skills and Competencies Assessment:

- CO2.01X determine their own information technology skills;
- CO2.02X analyse their information technology strengths and weaknesses;
- CO2.03X summarize, electronically, their information skills and competencies;
- CO2.04X demonstrate their information technology skills in samples of their work;
- CO2.05X demonstrate understanding of the importance of doing exemplary work and keeping samples of it for inclusion in résumés and portfolios that can be used in a future job search.

Information Technology Programs in Secondary School:

- CO3.01X identify the information technology programs available at their school;
- CO3.02X determine the prerequisites for specific information technology courses;
- CO3.03X design a personal plan to help them achieve information technology skills and competencies.