

Information and Communications Technology 12

Course Outline

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Course Goals

The prescribed learning outcomes for The Nature of ICT address the attitudes, skills, and knowledge that support students' understanding of the nature of ICT and its impact on self, work, and society.

GATHERING AND PROCESSING 2

Students develop skills related to advanced features of selected software, use ethical standards regarding information, and apply “employability” skills.

It is expected that students will:

- use touch keyboarding techniques for personal and business use
- identify the limitations of electronic tools such as spelling and grammar checkers
- construct and modify personal and business documents that use:
 - bulleted lists
 - tables
 - columns
 - page, section, and column breaks
 - graphics
 - hyperlinks
- use advanced software features such as shortcuts, function keys, menus, buttons, macros, linked text boxes, and templates to more efficiently compose and edit documents
- apply ethical standards with respect to privacy, confidentiality, piracy, plagiarism, and personal behaviour while using electronic tools to gather information
- demonstrate strategies that protect personal privacy while using the Internet
- show respect for the opinions and contributions of others while participating in or leading teams
- explain how common browsers and search engines operate

REFINING AND ORGANIZING 2

Students use advanced document development, integration, and management skills to create professional-looking products.

It is expected that students will:

- create a complex set of linked spreadsheet documents for personal or business use
- use formulas, data planning, key fields, report functions, and relationships effectively within a database
- prepare and use software macros in wordprocessing, spreadsheet, and database software
- organize information from a variety of sources, using computer software, for various audiences and purposes

- choose the most appropriate type of software for an assigned task, giving consideration to price, quality, creation, open standards, and open source
- create and incorporate graphics and sound files into electronic documents and presentations
- use effective methods of backup document storage
- evaluate file compression methods to compress and decompress data
- use appropriate transportation or storage media for a given type of data

PRESENTING AND COMMUNICATING 2

Students use advanced ICT skills to create high quality electronic documents and presentations that encourage the development of high-level communications skills.

It is expected that students will:

- prepare and deliver presentations using presentation graphics software, incorporating:
 - image manipulation
 - timing
 - linking
 - slide transition features
 - interactivity
- apply various skills, methods, strategies, and technical tools to communicate with a variety of audiences
- use collaborative problem-solving and decision-making skills to complete business, school, and personal tasks
- describe effective project management and teamwork strategies
- use available Internet communication tools for personal or business purposes
- apply the principles of distributed learning in a web-based learning environment

NEW TECHNOLOGIES 2

Students have opportunities to explore ICT issues and new technology in order to identify the potential impact technology will have on their future lives.

It is expected that students will:

- describe and evaluate the advantages and disadvantages of a variety of electronic communications environments and Internet service providers
- evaluate risks and consider ways to mitigate threats of computer viruses through the use of virus protection and firewall software
- evaluate online learning tools
- describe the use of online learning tools for self-directed and self-paced learning
- evaluate different types of personal computing/digital devices that could be used for educational purposes
- explain the impact of recent developments in biotechnology and other emerging technologies on our society
- explain relationships between concerns about privacy and new technologies, including “spyware” and content filtering

- identify ethical, social, and legal issues relevant to biotechnology and artificial intelligence

Long-term Timeline

It is difficult to specifically identify unique units which will be covered each month because of the constant overlap and interconnection between course topics. However, throughout the year, there is a gradual progression in the emphasis of the exercises. In the first third of the year, the exercises are done to emphasize the “Foundations” of the course. In the second portion of the year “Process” is underscored. Lastly, at the end of the year “Presentation” and synthesis of all the skills learned is emphasized. The duration of the “Foundations”, “Process”, and “Presentation” units are also slightly varied with each year and class as groups of students may be stronger or weaker in certain areas.

Evaluation*

Major Projects	60%
Class Work	40%

*May be subject to change