SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO

Sault College

COURSE OUTLINE

COURSE TITLE:	UNDERSTANDING TECHNOLOGY		
CODE NO. :	OEL803	SEMESTER:	
PROGRAM:	Computerized Business Systems		
AUTHOR:	Ulrike Landry / Lynn Dee Eason		
DATE:	Mar 2008	PREVIOUS OUTLINE DATED:	Oct 2004
APPROVED:			
	_____ **Dean**		_____ **DATE**
TOTAL CREDITS:	3		
PREREQUISITE(S):	NONE		
HOURS/WEEK:	14 weeks/48 hours		

For additional information, please contact

School of Continuing Education and Business, Hospitality & Programs
(705) 759-2554, Ext. 2405

I.	**COURSE DESCRIPTION:** The personal computer is well established as an integral part of today's office. From the PC itself to the Internet; scanners to digital cameras; word processing to multimedia presentations, students will be introduced to all aspects of the modern computer – its uses, history and future – to develop the computer literacy required in the workplace today.

II.	**LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:**	
	Upon successful completion of this course, the student will demonstrate the ability to:	
	1.	Demonstrate awareness of the relative size, scope, uses, and variety of available computer systems.
		Potential Elements of the Performance: • Explain what it means to achieve IT competency • Discuss the scope and impact of technology on our lives and the impact it will have in the future • Identify the size, uses, and varieties of available computer systems • Describe the capabilities and limitations of computer systems
	2.	Explain the fundamental components and the operational capabilities of a computer system.
		Potential Elements of the Performance: • Describe the purpose and objectives of an operating system • Explain common operating system platforms • Describe the fundamental concepts associated with the Windows operating environment using appropriate terminology • Describe the function and applications of word processing, spreadsheet, database software, and personal information management • Discuss the scope of popular PC applications for home and family, education, reference, business and financial management
	3.	Explain the functionality of the Internet and how the Internet impacts our daily lives.
		Potential Elements of the Performance:

		• Describe basic Internet concepts, including how to go online and the makeup of an Internet address.
		• Use Internet browsers to access information on the Internet
		• Access and use various types of Internet applications, including the World Wide Web, FTP, e-mail, instant messeaging, newsgroups, videoconferencing and electronic publishing
		• Discuss critical Internet issues including hackers, SPAM and stalkers
	4.	Describe the inner hardware of a personal computer and how data is used and stored
		Potential Elements of the Performance: • Discuss how data are stored and represented in a computer system. • Describe the function of and relationships between the internal components of a PC including the motherboard, processor, RAM and other memories, ports, buses, expansion boards and PC cards • Distinguish processors by their word size, speed, and memory capacity • Identify new approaches to traditional processor design
	5.	Demonstrate the ability to distinguish how data is stored on digital media and how data is moved into and out of a computer system
		Potential Elements of the Performance: • Discuss the various types of magnetic disk storage devices and media, including their organization, principles or operation, maintenance and performance considerations • Describe the operational capabilities and applications for the various types of optical laser disc storage • Describe the operation and application of common input devices • Describe the operation and application of common output devices
	6.	Demonstrate an understanding of data communications, network and Internet terminology and applications.
		Potential Elements of the Performance: • Describe the concept of connectivity • Describe alternatives and sources of data transmission that enable networking • Describe the function and operation of data communications hardware • Describe the various types of network topologies and essential LAN concepts using appropriate terminology

		• Identify the scope and potential of home networking and it's related concepts
	7.	Recognize the issues associated with the widespread use of computers in the workplace today and in the future.
		Potential Elements of the Performance: • Put society's dependence upon computers into perspective • Consider ergonomic and environmental concerns when designing a workplace • Recognize considerations critical to evaluating ethical questions relating to the use of IT • Identify points of security vulnerability for a computer center, an information system, and a PC
	8.	Discuss the emerging popularity of E-Commerce and the security issues involved.
		Potential Elements of the Performance: • Describe the scope of and concepts related to e-commerce • Discuss the importance of privacy of personal information • Describe the implications of IT crime including viruses, digital theft, intellectual property rights and abuse of personal information:
	9.	Demonstrate an understanding of the future of computing and emerging technologies.
		Potential Elements of the Performance: • Describe AI (artificial intelligence) concepts and applications, including expert systems, intelligent agents, and robotics • Discuss the concepts and long-term potential of VR (virtual reality)
	10.	Discuss the different careers available in an information society.
		Potential Elements of the Performance: • Describe career opportunities that are available requiring IT competence • Discuss careers which have become IT dependent and the way they have become IT dependent • Discuss the trend toward telecommuting (working from home) and the pros and cons of telecommuting • Discuss how IT solutions are changing the current workplace

III.   TOPICS:

Note: These topics sometimes overlap several areas of skill development and are not necessarily intended to be explored in isolated learning units or in this order.

1. Our Digital World

2. The History of Computing

3. System Software

4. The Internet and The World Wide Web

5. Input and Processing

6. Output and Storage

7. Telecommunications and Networksutput

8. Security Issues and Strategies

9. Electronic Commercevacy

10. Computer Ethics

11. Application Software

12. Careers in an Information Society

IV.	**REQUIRED RESOURCES/TEXTS/MATERIALS:**
	Computers Understanding Technology Comprehensive, 3<u>rd</u> edition, by Floyd Fuller and Brian Larson published by Paradigm Publishing, 2008. ISBN 978-0-76382-935-3

V. EVALUATION PROCESS/GRADING SYSTEM:

Tests - Test 1 is online and Test 2 is paper based.

Test 2 must be proctored and completed in the testing centre at your registering college.

Completion of Chapter Submitted Quizzes (x 10)	**20%**
Written assignments each week (x 10)	**20%**
Test 1 – 30% and Test 2 – 30%,	**60%**
(Test 1 is online -- Test 2 is paper-based and proctored)	

100%

Passing grade at Sault College is 50%. Your registering college will convert the percentage grade to the letter grade.

VI. SPECIAL NOTES:

1. **If you are a student with a disability please identify your needs to the tutor and/or the Centre for Students with Disabilities at your registering college.**
2. **Students, it is your responsibility to retain course outlines for possible future use to support applications for transfer of credit to other educational institutions.**
3. **Course outline amendments: The Professor reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources.**