

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE. ON

COURSE OUTLINE

COURSE TITLE: Technology in Perspective


CODE NO.: TNYWO SEMESTER: _____ Any offered.

PROGRAM: _____ General Education - Understanding Technology.

AUTHOR: _____ Greg White

DATE: Jan '97 PREVIOUS OUTLDSE DATED: Spring '95.

APPROVED^



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Technotogy in Perspective _____ IMXIM.
COURSE NAME CODE NC

TOTAL CREDnS 3

PREREQUISrRE(S): _____ General Admission Requirements into a diploma program at an Ontario College or by special permission of the professor. _____

L PmLOSOPHY/GOALS: _____ This course is designed to introduce tiie participant to ao array of tfe various types of technology, tiieir in:q)act on society and their inter-relationdup to ois ano&er. The student will i^on completion appreciate die changes diat technology *has* broog^ about not only in tiie woiking world but in society in general. In order to better prepare *tt»* studen for changes in a educational experience and "on the job" learning various study skill techniques will be explored to promote life long learning in an efQcient manner. The etiiical issues surrounding the technological advances and tiieir impacts on &e working world is vital knowle^ in preparing the student for fiiture careers and career changes. This course will also allow ti^ student tiie opportunity to learn, practice and demonstrate a number of tiie generic ddll requirements as outlmed in tiie provincial generic skill learning outcomes documents.

n. STUDENT PERFORMANCE OBJECTIVES (LEARNING OUTCOMES):

Upon successful completion of this course the student will demonstrate the ability to:

- 1) _____ use a variety of study skill techniques to optimize learning _____
- 2) _____ define tiie changes inherent to an information society and tiieir possible impacts on her or his career _____
- 3) _____ define the major technological advances in information technologies and discuss their impact on the evolution of society. _____
- 4) _____ define in general terms tiie power of computers in terms of an analyzing engine, storage technologies, input and output technologies, communication technologies, operating systems and systems software. _____
- 5) _____ define the necessaiy steps to create solutions witi information technologies using critics thinking and problem solving skills. _____
- 6) _____ define the role various software applications have as personal and professional productivity tools. _____
- 7) _____ Discuss tiie inq>lications and issues tiat technologies have on our present lives aid the etiiical impacts tiie technologies of tiie fiiture will affect _____

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in. TOPICS TO BE COVERED:	Approximate Time Frames
1) Study skill techniques including scheduling, listening, notetaking, textbook reading and testing.	Weeks 1 & 2
2) How information technologies work together, the affect on careers, changes in organizations, culture, society and knowledge base.	Weeks 3 & 4
3) Historical incidents, how organizations work, types of information systems in organizations and what the future may hold.	Weeks 5 & 6
4) Overview of a CPU, system unit components, microprocessor chips, storage mediums, secondary storage components, input and output devices, multimedia systems, communications and telecommunication networks and operating systems.	Weeks 6 thru 8
5) Building information systems using preliminary analysis and critical thinking, systems analysis, systems design, development and implementation.	Weeks 8 & 10
6) Application software including word processing, spreadsheets, database management, business software's, graphics, desktop publishing, games, engineering software, artificial intelligence, communications and integrated packages.	Weeks 10 thru 13
7) A framework for ethical decision making. Professional and corporate codes of conduct, privacy, property and system quality. Quality of life issues and threats to information systems.	Weeks 14 & 15

These time frames will be extremely flexible dependent

IV. LEARNING ACTIVITIES/REQUIRED RESOURCES

Topic/Unit- _____ Study skill techniques including scheduling, listening, notetaking, textbook reading and testing. _____

Learning Activities:

_____ Students will listen to lectures and participate in practical exercises individually and in small groups designed to show the advantages of using study skills. They will develop skills to contact resources via communication with the "outside" world. Specific areas include counseling, placement, financial aid, L.R.C, L.A.C., student council, athletics, S.A.C. etc. _____

Resources:

Various speakers, reference video's, college produced study skills guide, lecture notes and handouts.

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Topic/Unit - _____ How information technologies work together, the affect on careers, changes in organizations, culture, society and knowledge base. _____

Limine Activities:

Listen to presentation, participate in small group discussion on impacts to students own discipline, interview vocational professor and research disciplines' trade journals and share perceptions on career direction. Develop an inventory of what will be required for the future. Participate in discussion about changes in society and culture by information technologies.

_____ Overheads, contact professors, trade magazines and journals, text chapter one _____

Topic/Unit - _____ Historical impacts, how organizations work, types of information systems in organizations and what the future may hold. _____

Limine Activities:

Listen to presentation, develop a glossary of new terms and definitions, participate in class discussion on how major technology changes made changes to the world and society. Research major changes in students discipline and report participate in discussion on organizational changes brought about by technologies and develop a synopsis of future direction.

Resources:

_____ Overheads, interviews with vocational contact instructors, text chapter two _____

Topic/Unit - _____ Overview of a CPU, system unit components, microprocessor chips, storage mediums, secondary storage components, input and output devices, multimedia systems, communications and telecommunication networks and operating systems. _____

Timing Activities:

Listen to presentation, complete self-study exercise in definitions and terms, participate in small group discussion on how information technologies help us see and visualize, communicate, analyze and understand, create and control our lives. (from the hardware perspective). participate in small group discussion on possible future trends in hardware and report on the impact that will have on society. _____

Resources:

Overheads, lecture notes, case studies, supplementary AV videos, text chapters three, four, five, six and seven.

Topic/Unit - _____ Build information systems using preliminary analysis and critical thinking, systems analysis, systems design, development and implementation. _____

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Lcaamg Activities;

Listen to presentation on technological, organizational and people issues involved *m* building informational systems, develop a flow chart to critically analyze problems, participate in small group case study problem and present solution. Participate in discussion involving nontechnological factors in building systems (*organizational politics, business procedures, accepting change, motivating people, training, ergonomics, legal and regulatory controls*)_____

Rcsomrtes;

_____Overheads, lecture notes, text chapters eight and nine_____

Topic/Unit - _____Application software including word processing, spreadsheets, database management, business software, graphics, desktop publishing, games, engineering software, artificial intelligence, communications and integrated packages._____

Lfffnang Activities;

Listen to a presentation on the basic characteristics of application software, the capabilities of word-processing, spreadsheet and data base management software, how to determine which software is most appropriate and factors to consider prior to purchasing, students will produce and present a major paper to explain a particular software program related to their discipline. Participate in discussion on affects of software and impacts future software will have and the direction technology is involving to ._____.

EeSftUttes.l

_____Overheads, lecture notes, project outline, student presentations and accompanying notes, input and direction from major vocational instructor, text chapters ten, eleven, twelve, thirteen and fourteen.

lopifZLInit - _ A framework for ethical decision making. Professional and corporate codes of conduct, privacy, property and system quality, Quality of life issues and threats to informatiw systems._____

Students will listen to a presentation on various issues arising due to technology and guidelines used to make choices, the effect information technologies may impact on privacy and personal freedoms, property rights and intellectual property, participate in discussions involving protection of information systems against natural disasters, computer crime and human error. Participate on various case studies._____

overheads, lecture notes, text chapter fifteen

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V. EVALUATION METHODS: (INCLUDES ASSIGNMENTS, ATTENDANCE REQUIREMENTS, ETC.)

A final grade will be given as a letter in accordance with the following percentage equivalent:

grading System

A+	: 95-100%	Consistently Outstanding	
A	: 85-94%	Outstanding Achievement	
B	: 75-84%	Consistently Above Average Achievement	
C	: 55-74%	Satisfactory or Acceptable Achievement	
X	=	to carry over into next semester, given only for extreme circumstances.	
R	=	Repeat, did not yet meet all of the course requirements at this time.	

A final grade will be derived as follows:

Test 1	=	10%
Test 2 (final)	=	15%
7 mini-quizzes random throughout semester	=	25%
Technical Report and presentation	=	20%
Written Assignment(s)	=	10%
Attendance including homework **	=	<u>10%</u>

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A portion of the final grade is based on cooperation and ability. Regardless of a persons background or ability in order to work in an industrial or business environment requires the ability to work in harmony and with respect for your peers and supervisors. This attitude is measured and reflected either positively or negatively in your overall grade.

Attendance is a measure not only of physical presence at an appointed hour but also a measure of your cooperation and attitude. Attendance is expected and will therefore be penalized by 1/2% for every hour missed or late without a valid and acceptable excuse. This 1/2% will be deducted from your overall grade.

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VL PRIOR LEARNING ASSESSMENT:

Students who wish to apply for advanced credit in the course should consult the instructor. Credit for prior learning will be given upon successful completion of the following:

- documentation from previous training (*academic or work experience*)
- successful completion with a minimum **grade** of 65% *aa* an exam administered by the instructor of the course
- completion of two assignments or suitable portfolio covering course content

Vn. REQUIRED STUDENT RESOURCES

Text: Laudon, Traver & Laudon, Information Technology and Society, Vadsforth Publishing Company, 1994, ISBN 0-534-19512-1 (Available in the campus Shop)

Other material used in this course will be issued by your instructor, this material is a portion of various texts, books and periodicals or is produced by Sault College. As we use only a small portion of many different texts, we have obtained copyright approval for the distributed material.

NOTE: On any material you use in your written projects that requires copyright, you will be responsible for obtaining written permission.

You are expected to bring to class, your text, note book (three ring loose leaf binder) and writing materials.

Vm. ADDITIONAL RESOURCE MATERIALS AVAILABLE IN THE COLLEGE LIBRARY and elsewhere:

It must be noted that an extensive collection of resource materials exist are available in the school library (resource center), the public library as well as Algoma University and Sault Ste. Marie library (Lake Superior State University) all of which you have access to.

In a course such as this, periodicals, trade magazines, manufacturer literature and the INTERNET may be your best sources for up to date and current information.

Your instructors are your best source of information and can provide you with direction of where to look for information on your particular discipline. Utilise them.

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What follows is by no means an exhaustive list.

1. Made in Japan: Akio Morito and Sony, by Morito, Akio
published by Dutton, New York
2. Canadian Occupational Health and Safety Handbook, abbr.. by
Izum Michael published by Nash, Don Mills ref KE3365.N38
3. What they Don't Teach You at Harvard Business School, by N.
McCormack published by Bantam Books, Toronto
4. The Sudbury Incident, by Southren, Frank published by York,
Toronto ISBN 0-920424-29-5
5. The Gulf Handbook, published by Trade and travel
Publications Bath, England ISBN 0-900751-11-8

Available in the Book Store:

6. The Meeting Will Come to Order, by Sponberg, Harold
published by Michigan State University
7. Organizing Business Meetings, by Berezovsky, Joyce
published" by Falken, Edmonton ISBN Q9691503-0
8. Robert's Rules of Order published by Bantam books
9. The Language of Argument, by MacDonald, Daniel published by
Harper Collins
10. The One Minute Manger, Blanchard, Kenneth publued by
York
11. An introduction to Canadian Business, by .Archer, Fourth
Edition published by MrGraw Hill Ryerson
12. Quality Control, by Besterfield, David published by
Prentice Hall ISBN 0-13-745100-8

EfiriolitalSfiftmn (MAGAZINES, ARTICLES)

Canadian machinery and Metalworking
 Business Veek
 Canadian Business Magazine
 Sales and marketing Management
Byte M^azine
Numerons otha* computer periodicals

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Audiovisual Section (FILMS, FILMSTRIPS, TRANSPARENCIES)

Available through your instructor and the A/V dept. Sault College:

call number	title
C2011	Upgrading, Retraining & Changing Cobs
C671	Business Studies, Everybody's Business
C1025	Business Ownership
C909	Contract Law
C923	Economics
C82	Megatrends
C1008	Emergency Management Training Videos
C1056	Training Tomorrow's Managers Today
C603	Managing Change
C701	People, People, People
C882	Project Management
CI 9	The Human Problems of Management
C1014	Japan: Why Does Trade Occur

IX. SPECIAL NOTES

Students with special needs (e.g.. physical limitations, visual impairments, hearing impairments, learning disabilities) are encouraged to discuss required accommodations confidentially -with the instructor.

Youi- insti-uctor reserves the ri^t to modify the course as he/she deems necessaiy to meet ihe needs of students.