



UNIVERSITY OF BELIZE
FACULTY OF SCIENCE & TECHNOLOGY
DEPARTMENT OF INFORMATION TECHNOLOGY
Introduction To Computer Studies (CMPS 140)
Course Outline

Semester I, August – December 2008

Instructor

Office

Telephone

Email

Course Web site

<http://it.ub.edu.bz/~it/moodle/course/view.php?id=2>

Class Hours

Section

Office Hours

Course description:

This course is designed to be an introductory computing concepts course. The intent of the course is to teach fundamental concepts, theories, and applications of computers, the basics of hardware, **software, computer ethics, systems software, application software and** the role of computing in society today. A software suite is used to create and edit text documents, spreadsheets, presentations, and databases. There is also an Internet component in the course. The course serves as the required computer literacy component of the general education curriculum.

Prerequisite: Basic operational knowledge of computers.

Method of Instruction:

The contents of the course will be imparted mainly through the use of practical activities, complemented with discussions and explanations provided during the execution of each of the activities. In each of the units, students will be assigned specific activities related to the topics being covered. These assignments will help students to get extra practice and will enable them to fully apply their learning. At the end of each unit there will be an evaluation activity that will be in the form of a written or practical test.

Students are expected to actively participate and prepare for each of the sessions of the course; therefore a portion of their grading will be represented by the chapter summaries they will submit.

The participation of students in discussions may be considered, when tallying final grades, as needed.

Objectives:

At the end of this course students will be able to:

1. Use computer terminology, discuss the history and evolution of computers, describe the main hardware components and peripherals, explain the function of a network and compare different types of networks, and differentiate between major software categories
2. Explain main functions of operating systems, use leading operating systems on an end-user level
3. Surf the information highway to discover its full capability (including e-mail, search engines, etc.)
4. Use a word processing and a spreadsheet application to create, modify and format text documents and spreadsheets with basic calculations and charts
5. Explain the basic concepts and terms related to databases and relational database management systems (RDBMS), and create a database, enter data and perform basic operations on it
6. Use a presentation application to create basic presentations

Course Topics / Units and Dates:

These dates are subject to change, depending on regulations from the University and/or the Government of Belize with regards to holidays and any other events.

Dates shown are for the **Monday-Wednesday** sessions

C o n t e n t s	# of Sessions	Dates of Sessions	Final Grade %
Course review - Course outline - Course requirements - Grading	0.5	Aug. 20	
UNIT I: Computer concepts - History - Literacy	0.5	Aug. 20	
- Basic components <ul style="list-style-type: none"> • Input devices • Output devices 	1	Aug. 25	
<ul style="list-style-type: none"> • Storage devices • Memory, RAM, ROM, cache, virtual memory - Data representation <ul style="list-style-type: none"> • Number systems: binary, decimal, hexadecimal • Memory units: Bit, byte, etc. • ASCII Code 	1	Aug. 27	
- Hardware and Software <ul style="list-style-type: none"> • Micro-Processors: 8086, 80286, 80386, 80486, Pentium, etc. • System Software • Application Software 	1	Sep. 1	
- Types of computers (Minicomputers, Mainframes, Supercomputers, Microcomputers) - Computer Languages (Machine, High Level, Fourth generation) - Compilers and Interpreters	1	Sep. 3	
- Computer Networks <ul style="list-style-type: none"> • Local Area Networks (LAN) • Wide Area Networks (WAN) - Network topologies (star, bus, ring, mesh, hybrid) - Telecommunications <ul style="list-style-type: none"> • Wired (Cable: UTP, UDP, FIBEROPTICS) • Wireless (Infrared, Microwave, Radio wave, Satellite) 	1	Sep. 8	
Assignment I: Computer Generations, from IBM 8088 to Pentium 4		Sep. 10	2 %
Evaluation of Unit I (Written Test)	1	Sep. 10	12%
UNIT II: Operating Systems - Definition and functions of an Operating System - Types of Operating Systems - Filenames and directories - Command Line Interface (CLI) vs. Graphical User Interface (GUI)	1	Sep. 15	
- DOS vs. Windows - File and directory (folder) manipulations	1	Sep. 17	
Assignment II:		Sep. 24	2 %
Evaluation of Unit II (Practical)	1	Sep. 24	4 %

C o n t e n t s	# of Sessions	Dates of Sessions	Final Grade %
UNIT III: Internet & E-mail - History of the Internet - What is the Internet? - Functions and uses of the Internet - Internet services (www, gopher, FTP, Telnet, chat, newsgroups) - Browsing tools - Getting on-line	1	Sep. 29	
- Search engines, advanced search tips - E-mail - Internet Security, MalWare - Multimedia on the Web	1	Oct. 1	
Assignment III:		Oct. 6	2 %
Evaluation of Unit III. (Practical)	1	Oct. 6	4 %
UNIT IV: Word Processing - Definition and purpose of a Word Processing program - Functions of a Word Processing program - User interface (Menu bar, Icons, Shortcut keys, other keys)	1	Oct. 8	
- Formatting letters, memos, documents, etc. - Set variable margins for documents - Working with columns	1	Oct. 15	
- Tabulation - Use styles to create consistent and quick formatting - Use horizontal and vertical rulers effectively	1	Oct. 20	
- Creating and modifying tables - Pictures (graphics) - Spell / Grammar check, Thesaurus - Printing a document	1	Oct. 22	
Assignment IV:		Oct. 27	2 %
Evaluation of Unit IV. (Practical)	0		4 %
UNIT V: Spreadsheets - Definition and purpose of an electronic spreadsheet program - The worksheet interface – spreadsheet notation (cells, cell pointer, range, columns, rows) - Understanding the functions of the mouse - Data entry	1	Oct. 27	
- Using the auto-fill feature - Creating formulas and functions - Using the built in functions	1	Oct. 29	
- Working with rows and columns - Using Absolute / Relative Cell References in formulas - Copying formulas - Formatting formulas: alignment, number formats, column widths, borders, shading, bold, italics, underline, fonts.	1	Nov. 3	
- Saving, retrieving and printing a worksheet - Creating graphs - Print preview, page setup, paper orientation, scaling, headers and footers, margins	1	Nov. 5	
Assignment V:		Nov. 10	2 %
Evaluation of Unit V. (Practical)	0		4 %

C o n t e n t s	# of Sessions	Dates of Sessions	Final Grade %
UNIT VI: Database Management System - Introduction to database concepts and terminology - Relational database planning and design - Examining a table – data, fields, records - Creating a database - Types of keys - Adding records - Modifying the database design - Finding and editing records - Selecting, filtering and sorting records	1	Nov. 10	
- Refining the results of a query - Using queries to perform calculations - Joining tables in a query	1	Nov. 12	
- Creating a Form and modifying the form design - Creating a report - Creating a report that contains totals	1	Nov. 17	
Assignment VI:		Nov. 19	2 %
Evaluation of Unit VI (Practical)	0		4 %
UNIT VII: Presentations - Beginning a Presentation - Drawing Tools - Inserting Graphics, Tables	1	Nov. 19	
- Organization Charts and Microsoft Graph - Using Color Schemes, Templates and Slide Masters - Slide Shows, Output, and Presentation Options - Working with Graphics and Animation	1	Nov. 24	
- Saving Presentations for Internet Viewing and Delivery - Formatting Tools - Sharing Information with Spreadsheets and Word Processors	1	Nov. 26	
Assignment VII:		Dec. 1	2 %
Evaluation of Unit VII (Practical)	0		4 %
UNIT VIII: Integration - Mail Merge, Envelopes, Labels	1	?	
- Importing and exporting data among applications	1	?	
Assignment VIII:		?	2 %
Evaluation of Unit VIII (Practical)	0	?	4 %
Final Practical Exam:	1		15 %
Final Theory Exam:	3	Dec. 8 – 15	15%
Total	0	According to University Exams Schedule	100%

SCHEDULE OF EXAMINATIONS AND ASSIGNMENTS				
Evaluation Activities	Dates and deadlines	% of final grade	Additional notes	What will be evaluated
Unit I: Written Test Assignment I	On: Sep. 10 Due: Sep. 10	12% 2%	The assignment description available at the course website. http://it.ub.edu.bz/~it/moodle/course/view.php?id=2	Applies to Assignments, Written and Practical Tests, respectively. Research done in several sources, application of contents covered in class, creativity, presentation, organization, critical thinking, and ability to analyze situations and apply functional solutions to specific problems.
Unit II: Practical Test Assignment II	On: Sep. 24 Due: Sep. 24	4% 2%	The assignment description available at the course website. http://it.ub.edu.bz/~it/moodle/course/view.php?id=2	
Unit III: Practical Test Assignment III	On: Oct. 6 Due: Oct. 6	4% 2%	The assignment description available at the course website. http://it.ub.edu.bz/~it/moodle/course/view.php?id=2	
Unit IV: Practical Test Assignment IV	On: Oct. 27* Due: Oct. 27	4% 2%	The assignment description available at the course website. http://it.ub.edu.bz/~it/moodle/course/view.php?id=2	
Unit V: Practical Test Assignment V	Due: Nov. 10* Due: Nov. 10	4% 2%	The assignment description available at the course website. http://it.ub.edu.bz/~it/moodle/course/view.php?id=2	
Unit VI: Practical Test Assignment VI	Due: Nov. 19* Due: Nov. 19	4% 2%	The assignment description available at the course website. http://it.ub.edu.bz/~it/moodle/course/view.php?id=2	
Unit VII: Practical Test Assignment VI	Due: Dec. 1* Due: Dec. 1	4% 2%	The assignment description available at the course website. http://it.ub.edu.bz/~it/moodle/course/view.php?id=2	
Unit VIII: Practical Test Assignment VI	Due: TBA Due: TBA	4% 2%		
Chapter Summaries	Each summary is due: on the first day of class of the section	14%		
Final Practical Exam	On: Dec. 3	15%		
Final Theory Exam	On: Dec. 8 – 15 According to University Exams Schedule	15%		
* Since the class work is to be used in order to evaluate units 4 to 8, the dates indicated in this table refer to those when students will submit their work. NOTICE: The dates are subject to change, students will be informed accordingly.				

Textbook and required tools and supplies:

Notes for the course are published under Courses / Associate / CMPS140 on the website of the IT department:
<http://it.ub.edu.bz/~it/moodle/course/view.php?id=2>

User Guides for OpenOffice.org 2.x: <http://documentation.openoffice.org/manuals/oooauthors2>

Students are requested to **always** bring at least two diskettes (in good conditions) to be used for their practice at class. For the practical activities that are evaluated (graded), students will also need diskettes.

Grading Plan:

For the evaluation of the course a point system will be used according to the University policies. Please refer to student's handbook.

The weighting of the components for this course will be:

- Assignments (8x 2%), 16%
 - Written Tests (1x12%), 12%
 - Practical Tests (7x4%), 28%
 - Chapter Summaries (7x2%), 14%
 - Final Exam
 - Theory (1x 15%), 15%
 - Practical (1x 15%), 15%
- Total 100%

Assignments

A total of 8 assignments (one per each Unit) will be given throughout the semester to aid in the accomplishment of the course objectives.

Assignments should be completed by the given deadline.

Assignments will be turned in at the end of the semester as part of the Portfolio.

Tests & Exam

There will be a total of eight tests and a final exam.

The eight tests will be administered as soon as the contents of a Unit are covered and could be Written Tests, Practical Tests or Questionnaires to be completed outside the classroom. Tentative dates have been included for students to prepare for these Tests.

Make-up tests will be given only with a valid University excuse.

The Final Exam will be given per the university's schedule and it will consist of two parts: one Practical and one of Theory.

Chapter Summaries

Chapter summaries should be **hand-written** and turned in at the beginning of the first class when the specific Unit will be covered.

Late penalties

Except when a case is documented as a medical emergency, homework submitted late will be penalized at a rate of **5% per day**.

Cheating policies

Unless otherwise stated, ALWAYS do individual work. Identical work is considered a violation of departmental policies and all collaborating parties will be penalized equally. This starts with the students receiving a grade of zero (0) on the assignment and can end with the student be asked to leave the university (check your handbook).

Roles & Responsibilities

Students, taking full responsibility for their learning, are responsible for:

- Attending ALL class sessions on time, actively participating in them and taking notes.
- Being prepared for ALL class sessions, by reading, studying and researching course materials before class.
- Spending at least 9 hours per week (3 hours for each hour of class) preparing, reading, investigating, working on assignments and studying outside the classroom.
- Communicating with the lecturer regarding the course, its content and its delivery. Communicating entails, but is not limited to, offering suggestions, asking questions and providing comments.
- Seeking further assistance from the lecturer and other classmates when further clarification/explanation is needed for the course contents.
- Checking e-mail and/or the course website for information and announcements regarding the course.
- Acknowledging other individuals (classmates and other lecturers and literature) from which assistance is received for an assignment, project or take-home test.

How to fail the course:

- Always fall behind the course calendar
- Do not attend to sessions and/or other events related to the course.
- Do not participate in class discussion
- Fail to submit deliverables
- Never take a test
- Caught by Cheating
- Share your work with other classmates

The **lecturer**, as a facilitator of student learning, will be responsible for:

- Attending ALL class sessions on time.
- Being prepared for ALL class sessions.
- Communicating the course information and the course contents with the students.

- Providing as much assistance inside and outside the classroom to help students to better grasp the materials being addressed by the course.
- Ensuring that the course objectives are met.
- Providing timely feedback to the students regarding the lecturer's measurement of their learning based on classroom participation, assignments, projects and exams.

Classroom rules and conduct:

Please refer to student's handbook. All academic policies contained therein apply to this course. Kindly consult your handbook. Check with the Office of Student Affairs, the Office of Records, or the Student Government office if you do not have a handbook.

Emergency Procedures:

As stated on the Emergency manual for the University, available at the Library.

Miscellaneous:

If any readings are assigned, **students are expected to have read them** (usually 5-10 pages per lecture) *before* the lecture that deals with that topic. This way concentration can be placed on answering questions and clarifying subtle or difficult points.

The following will be the rules of conduct to be observed during this course:

- Since the course will be implemented in a Computer Lab, students are to follow the instructions of the lecturer and to abide by the rules of the Labs.
- While in class students will not be allowed to check e-mail, browse the Internet, play games or open other applications than instructed; any student found not abiding by this will be requested to leave the class and return the next class period.
- Neither eating nor drinking is allowed under any circumstances.
- Cell phones must be turned off upon entering the classroom. Students who fail to comply will be asked to leave the classroom and return the next class period.
- If a student is inconsiderate and creating a lot of noise; he/she will be asked to leave.
- Students have a fifteen minutes grace period to reach class. Any student more than fifteen minutes late will need to obtain a written excuse from the Chair of the IT Department before entering the classroom.
- If a student is late or absent, it is his/her responsibility to find out what information have missed and what assignments are due. This does not mean coming to the lecturer to find out what you have missed or asking for a recap on what was presented earlier.

If students are bothered by anything or would like to discuss any unfavorable situation that is affecting their learning, feel free do discuss it with the lecturer. If the lecturer cannot assist, then the chairman of the department will be asked to look into the matter.

Weekly or daily tentative schedule:

There will be a lecturing period for a maximum of 20-30 minutes, where the topics will be exposed. The rest of the time allotted for the class will be dedicated to lab work that applies the knowledge and skills presented in the previous step.