

Subject Description Form

Subject Code	COMP100
Subject Title	Introduction to Information Technology
Credit Value	3
Level	1
Pre-requisite / Co-requisite/ Exclusion	Nil
Objectives	<p>This subject provides students with the basic concepts of information technology and computing, as well as knowledge and practice on deploying and controlling common information technology applications. This subject is suitable for all students as a first subject in information technology, whether they intend to continue to study information technology or not. Students who intend to study information technology-related programmes are strongly recommended to take both COMP100 and COMP111.</p>
Intended Learning Outcomes	<p>Upon completion of the subject, students will be able to:</p> <ul style="list-style-type: none"> a) understand how a computer works; b) understand the potentials of information technologies in business and industry; c) use popular operating systems to carry out sequence of tasks; d) appreciate the power of programmed computer operation; e) understand the current trends in the development of popular information technologies such as the Internet and related tools; f) appreciate IT-related intellectual property issues and their protection. <p>Alignment of Programme Outcomes:</p> <p>Program Outcome 1: This subject contributes to having students practice their writing skills with project document and report writing, as well as project presentation.</p> <p>Program Outcome 2: This subject contributes to developing a global outlook at various factors that affects the performance and function of a computing system.</p> <p>Program Outcome 4: This subject contributes to developing student critical thinking through tutorial and lab exercises on solving problems. They will also practice more in written assignments, programming exercises, and project.</p> <p>Program Outcome 7: This subject contributes to team work with group-based project for students to practice team spirit.</p>
Subject Synopsis/ Indicative Syllabus	<p>1. Introduction to Computer Systems</p> <p>Major components of computer systems: central processing units, storage</p>

	<p>devices and media, inputs / outputs; working principle of computers; contemporary types of CPU, memory, input / output devices currently in use.</p> <ol style="list-style-type: none"> 2. System Software Functions and operations of system software; basic features and commands of MS Windows and Unix / Linux; script language and task control. Open source software like Ubuntu OS, OpenOffice, Octave. 3. Communication, Multimedia and the Internet Communication and networking; Internet resources and tools; multimedia information creation and application. 4. IT Applications Introduce typical applications of information technologies such as office automation, knowledge management, education, entertainment, digital edutainment, manufacturing, geo-informatics, bio-informatics, etc. 5. Inside IT Applications Role of programming in IT applications, e.g. shell programs, macros in Excel, robotic control, concept of algorithm and programming, debugging. 6. IT Intellectual Property Security, privacy and ethics with software; copyright and patent law; trade secrets and registered design.
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<p>Teaching/Learning Methodology</p>	<p>The course material will be delivered as a combination of mass lectures and small group supervised laboratory sessions. Students will get familiarized with common operating systems and environment, internet and multimedia tools. Open source software solutions like Ubuntu, OpenOffice and Octave as replacement of Windows, MS Office and Matlab will also be introduced. They will also attempt simple script, shell programs etc and appreciate exercising automatic control over the computer and applications.</p>
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<p>Assessment Methods in Alignment with Intended Learning Outcomes</p>	<table border="1"> <thead> <tr> <th data-bbox="432 1406 767 1574" rowspan="2">Specific assessment methods/tasks</th> <th data-bbox="767 1406 927 1574" rowspan="2">% weighting</th> <th colspan="6" data-bbox="927 1406 1469 1507">Intended subject learning outcomes to be assessed (Please tick as appropriate)</th> </tr> <tr> <th data-bbox="927 1507 1015 1574">a</th> <th data-bbox="1015 1507 1102 1574">b</th> <th data-bbox="1102 1507 1190 1574">c</th> <th data-bbox="1190 1507 1278 1574">d</th> <th data-bbox="1278 1507 1366 1574">e</th> <th data-bbox="1366 1507 1469 1574">f</th> </tr> </thead> <tbody> <tr> <td data-bbox="432 1574 767 1641">1. Assignments</td> <td data-bbox="767 1574 927 1641">25%</td> <td data-bbox="927 1574 1015 1641">✓</td> <td data-bbox="1015 1574 1102 1641">✓</td> <td data-bbox="1102 1574 1190 1641">✓</td> <td data-bbox="1190 1574 1278 1641">✓</td> <td data-bbox="1278 1574 1366 1641">✓</td> <td data-bbox="1366 1574 1469 1641"></td> </tr> <tr> <td data-bbox="432 1641 767 1709">2. Lab exercises</td> <td data-bbox="767 1641 927 1709">45%</td> <td data-bbox="927 1641 1015 1709">✓</td> <td data-bbox="1015 1641 1102 1709">✓</td> <td data-bbox="1102 1641 1190 1709">✓</td> <td data-bbox="1190 1641 1278 1709">✓</td> <td data-bbox="1278 1641 1366 1709">✓</td> <td data-bbox="1366 1641 1469 1709"></td> </tr> <tr> <td data-bbox="432 1709 767 1776">3. Project</td> <td data-bbox="767 1709 927 1776">30%</td> <td data-bbox="927 1709 1015 1776">✓</td> <td data-bbox="1015 1709 1102 1776">✓</td> <td data-bbox="1102 1709 1190 1776">✓</td> <td data-bbox="1190 1709 1278 1776">✓</td> <td data-bbox="1278 1709 1366 1776">✓</td> <td data-bbox="1366 1709 1469 1776">✓</td> </tr> <tr> <td data-bbox="432 1776 767 1843">4. Mid-term</td> <td data-bbox="767 1776 927 1843"></td> <td data-bbox="927 1776 1015 1843"></td> <td data-bbox="1015 1776 1102 1843"></td> <td data-bbox="1102 1776 1190 1843"></td> <td data-bbox="1190 1776 1278 1843"></td> <td data-bbox="1278 1776 1366 1843"></td> <td data-bbox="1366 1776 1469 1843"></td> </tr> <tr> <td data-bbox="432 1843 767 1910">5. Examination</td> <td data-bbox="767 1843 927 1910"></td> <td data-bbox="927 1843 1015 1910"></td> <td data-bbox="1015 1843 1102 1910"></td> <td data-bbox="1102 1843 1190 1910"></td> <td data-bbox="1190 1843 1278 1910"></td> <td data-bbox="1278 1843 1366 1910"></td> <td data-bbox="1366 1843 1469 1910"></td> </tr> <tr> <td data-bbox="432 1910 767 1977">Total</td> <td data-bbox="767 1910 927 1977">100 %</td> <td colspan="6" data-bbox="927 1910 1469 1977"></td> </tr> </tbody> </table>								Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)						a	b	c	d	e	f	1. Assignments	25%	✓	✓	✓	✓	✓		2. Lab exercises	45%	✓	✓	✓	✓	✓		3. Project	30%	✓	✓	✓	✓	✓	✓	4. Mid-term								5. Examination								Total	100 %						
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Student Study Effort Required	Class contact:	
	▪ Lecture	14 Hrs.
	▪ Laboratory	42 Hrs.
	Other student study effort:	
	▪ Homework	12 Hrs.
	▪ Project	16 Hrs.
	Total student study effort	84 Hrs.
Reading List and References	Reference Books: 1. Shelly, G.B., Cashman, T.J. and Vermaat, M., Discovering Computers 2006, A Gateway to Information. Thomson Course Technology, 2005. 2. Shelly, G.B., Cashman, T.J. and Vermaat, M., Office 2003 Introductory Concepts and Techniques (Course One), Thomson Course Technology, 2004. 3. Shelly, G.B., Cashman, T.J. and Vermaat, M., Office 2003 Advanced Concepts and Techniques (Course Two), Thomson Course Technology, 2004. 4. E. Siever et. Al, Linux in a Nut Shell, 3 rd edition, 2000.	