City University of Hong Kong

Information on a Course
offered by Department of Computer Science
with effect from Semester A in 2012 / 2013

Part I

Course Title: Introduction to Computer Studies

Course Code: CS1102

Course Duration: One Semester

No. of Credit Units: 3

Level: B1

Medium of Instruction: English

Prerequisites:
Nil

Precursors:
Nil

Equivalent Courses:
Nil

Exclusive Courses:
CS1302 Introduction to Computer Programming

Part II

1. Course Aims:

This course aims to provide an introduction to computing concepts, skills and the technologies behind the Internet. Students are introduced to software tools, web content scripting and basic computer programming. No prior programming or computer science experience is required.
2. **Course Intended Learning Outcomes (CILOs)**

*Upon successful completion of this course, students should be able to:*

<table>
<thead>
<tr>
<th>No.</th>
<th>CILOs</th>
<th>Weighting (if applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>describe the basic principles of computer systems, networks, Internet and information security;</td>
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<tr>
<td>2.</td>
<td>inquire and evaluate the social, ethical, and safety issues of emerging technologies and innovations;</td>
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<td>3.</td>
<td>demonstrate the use of software tools and the ability to write simple programs using a scripting language;</td>
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<tr>
<td>4.</td>
<td>apply basic programming concepts to develop simple computer programs.</td>
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</table>

3. **Teaching and learning Activities (TLAs)**

*(designed to facilitate students’ achievement of the CILOs)*

Teaching pattern:

*Suggested lecture/tutorial/laboratory mix: 2 hrs. lecture; 2 hrs. laboratory.*

<table>
<thead>
<tr>
<th>ILO No</th>
<th>TLAs</th>
<th>Hours/week (if applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CILO 1, 2, 3, 4</td>
<td>All CILOs will be introduced, explained, discussed and demonstrated through lectures. Online resources will also be given for out-of-classroom reading and learning.</td>
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<tr>
<td></td>
<td>Labs</td>
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<td></td>
<td>Labs will be held in “terminal rooms”, in which concepts and operations presented in lectures will be demonstrated and exercised. Additional tasks will also be given for self practice.</td>
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<tr>
<td>CILO 1, 3, 4</td>
<td>Individual web-page design project</td>
<td></td>
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<tr>
<td>CILO 1, 2, 3</td>
<td>Group presentation project</td>
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<td></td>
<td>This project will give students a hands-on experience to discover and comprehend a particular computer topic. It will also give students an opportunity to demonstrate their abilities of using productivity software tools to create the presentation slides and report.</td>
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</table>
4. **Assessment Tasks/Activities**
(designed to assess how well the students achieve the CILOs)

<table>
<thead>
<tr>
<th>ILO No</th>
<th>Type of assessment tasks/activities</th>
<th>Weighting (if applicable)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>CILO 1, 2, 3, 4</td>
<td>• Quizzes and Exam One to two closed-book quizzes and one final exam will be given. Students’ knowledge of the organization of a computer system, basic technologies of the Internet and WWW, basic programming concepts and skills, awareness of computer security risks will be assessed.</td>
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<tr>
<td>CILO 1, 3, 4</td>
<td>• Individual web-page design project Students’ ability to create simple web pages using HTML and JavaScript, and knowledge of posting web pages to the Internet will be assessed.</td>
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<tr>
<td>CILO 1, 2, 3</td>
<td>• Group presentation project Students’ fluency of using common end-user productivity software tools such as presentation and word-processing software will be assessed by the quality of their presentation slides and submitted report. Moreover, students’ ability to effectively use the Internet applications will be demonstrated by locating additional useful resources from the Internet for the presentation.</td>
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</table>

5. **Grading of Student Achievement:** Refer to Grading of Courses in the Academic Regulations.

Examination duration: 2 hours

Percentage of coursework, examination, etc.: 40% CW; 60% Exam

Grading pattern: Standard (A+AA-…F)

For a student to pass the course, at least 30% of the maximum mark for the examination must be obtained.

Part III

**Keyword Syllabus:**

- Logical operations
- Binary arithmetic
- Basic operations of computer, data, CPU, memory, bus, IO, peripherals
- Programming concepts – instructions, programs, need for high-level language, compilers, interpreters
- Basic data types (integers, Boolean, characters and strings)
- Variables, expressions, and operations
- Compound statements and control structures
• Functions and parameters
• Operating systems – Unix, Windows
• File system
• End-user computing - word processing, spread sheet, presentation tool
• Databases
• Data communication - switches, networks, LANs, WANs, routers
• Internet – internet protocol, internet applications, email, file transfer, web browser, web server, web searching, basic html/css
• Concepts of client-side and server-side scripting
• Digital media, multimedia software tools
• Basic computer security, virus, filtering and scanning tools

Recommended Reading:
Text(s):

**Essential Text**


**Supplementary Reading**

Online Resources:
http://www.w3schools.com/js/default.asp