

**REGULATIONS FOR THE DEGREE OF BACHELOR OF ENGINEERING IN COMPUTER SCIENCE (BEng[CompSc]) AWARDED IN CONJUNCTION WITH THE DEGREE OF BACHELOR OF BUSINESS ADMINISTRATION (INFORMATION SYSTEMS) (BBA[IS])**

*These regulations apply to BBA(IS) graduates admitted to the one-year BEng(CompSc) curriculum in the academic year 2013-2014 and thereafter.*

*(See also General Regulations and Regulations for First Degree Curricula)*

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**ISCS 1 Admission requirements**

To be eligible for admission to the programme leading to the Degree of Bachelor of Engineering in Computer Science under these regulations, a candidate shall

- (a) comply with the General Regulations;
  - (b) comply with the Regulations for First Degree Curricula; and
  - (c) hold the degree of BBA(IS) from The University of Hong Kong.
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**ISCS 2 Period of study**

The curriculum shall normally require two semesters of full-time study, extending over not fewer than one academic year, and shall include any assessment to be held during and/or at the end of each semester. Candidates shall not in any case be permitted to extend their studies beyond the maximum period of registration of two academic years, except with the approval of the Board of the Faculty of Engineering.

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**ISCS 3 Curriculum requirements**

To be eligible for the award of the Degree of Bachelor of Engineering in Computer Science, a candidate shall

- (a) comply with the General Regulations;
  - (b) satisfy the requirements prescribed in UG5 of the Regulations for First Degree Curricula;
  - (c) complete the curriculum and satisfy the examiners in accordance with these regulations; and
  - (d) satisfy the examiners in no fewer than 66 credits of courses as prescribed in the syllabus.
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**ISCS 4** Candidates shall normally select not fewer than 30 and not more than 36 credits of courses in any one semester (except the summer semester), unless otherwise permitted or required by the Board of the Faculty of Engineering. Candidates may, of their own volition, take additional credits not exceeding 6 credits in each semester, and/or further credits during the summer semester, accumulating up to a maximum of 72 credits in one academic year.

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**ISCS 5** Candidates with unsatisfactory academic progress may be required by the Board of the Faculty of Engineering to take a reduced study load.

**ISCS 6 Selection of courses**

Candidates shall select their courses in accordance with these regulations and the guidelines specified in the syllabus before the beginning of each academic year. Changes to the selection of courses may be made only during the add/drop period of the semester in which the course begins, and such changes shall not be reflected in the transcript of the candidate. Requests for changes after the designated add/drop period of the semester shall be subject to the approval of the Board of the Faculty of Engineering. Withdrawal from courses beyond the designated add/drop period will be subject to the approval of the Board of the Faculty Engineering.

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**ISCS 7 Assessment and grades**

Candidates shall be assessed for each of the courses which they have registered for, and assessment may be conducted in any one or any combination of the following manners: written examinations or tests, continuous assessment, laboratory work, field work, project reports, or in any other manner as specified in the syllabus. Grades shall be awarded in accordance with UG 8(a) of the Regulations for the First Degree Curricula.

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**ISCS 8** Written examinations or tests shall normally be held at the end of each semester unless otherwise specified in the syllabus.

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**ISCS 9 Failure in assessment**

Candidates are required to make up for failed courses in the following manner:

- (a) undergoing re-assessment/re-examination in the failed course to be held no later than the end of the following semester (not including the summer semester); or
  - (b) re-submitting failed coursework, without having to repeat the same course of instruction; or
  - (c) repeating the failed course by undergoing instruction and satisfying the assessments; or
  - (d) for elective courses, taking another course in lieu and satisfying the assessment requirements.
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**ISCS 10** Candidates shall not be permitted to repeat a course for which they have received a grade D or above for the purpose of upgrading.

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**ISCS 11 Unsatisfactory performance**

A candidate will normally be recommended for discontinuation if they have:

- (a) failed to complete successfully 36 or more credits in two consecutive semesters (not including the summer semester), except where they are not required to take such a number of credits in the two given semesters; or
  - (b) failed to achieve an average Semester GPA of 1.0 or higher for two consecutive semesters; or
  - (c) exceeded the maximum period of registration specified in ISCS 2.
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**ISCS 12 Absence from examination**

Candidates who are unable, because of illness, to be present at the written examination of any course may apply for permission to present themselves at a supplementary examination of the same course to be held before the beginning of the First Semester of the following academic year. Any such application shall be made on the form prescribed within two weeks of the first day of the candidate's

absence from any examination. Any supplementary examination shall be part of that academic year's examinations, and the provisions made in the regulations for failure at the first attempt shall apply accordingly.

### **ISCS 13    Advanced standing**

Advanced standing may be granted to candidates in recognition of studies completed successfully in an approved institution of higher education elsewhere in accordance with UG2 of the Regulations for First Degree Curricula, provided that no candidate shall be eligible for such exemption without having earned at least 186 credits by passing courses in the BBA(IS) degree at this University. Advanced standing credits will be recorded on the transcript of the candidate and shall be included in the calculation of Semester, Year or Cumulative GPA and taken into consideration for the honours classification of the BEng(CompSc) degree to be awarded.

### **ISCS 14    Degree classification**

The degree of Bachelor of Engineering in Computer Science shall be awarded under these regulations in five divisions:

First Class Honours  
Second Class Honours Division One  
Second Class Honours Division Two  
Third Class Honours  
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and a pass list of successful candidates shall be posted on Faculty notice boards.

**ISCS 15** The classification of honours shall be determined by the Board of the Faculty of Engineering at its full discretion by taking into consideration the overall performance of candidates, or specifications in the syllabus, and other relevant factors as appropriate.

## **SYLLABUSES FOR THE DEGREE OF BACHELOR OF ENGINEERING (COMPUTER SCIENCE) (BEng[CS]) AWARDED IN CONJUNCTION WITH THE DEGREE OF BACHELOR OF BUSINESS ADMINISTRATION (INFORMATION SYSTEMS) (BBA[IS])**

*This syllabus apply to BBA(IS) graduates admitted to the one-year BEng(CompSc) curriculum in the academic year 2013-2014 and thereafter.*

### **YEAR FOUR**

To complete the curriculum, a candidate must pass all courses listed in the following table:

| <u>Course code</u> | <u>Course title</u>               | <u>Credits</u> |
|--------------------|-----------------------------------|----------------|
| BUSIxxxx           | IS Electives <sup>1</sup>         | 12             |
| ECON1002           | Introduction to economics II      | 6              |
| CSIS0250           | Design and analysis of algorithms | 6              |
| CSIS0311           | Legal aspects of computing        | 6              |

|          |                               |    |
|----------|-------------------------------|----|
| CSIS0801 | Final year project            | 12 |
| CSIS1412 | Industrial training           | 6  |
| CSISxxxx | CS Electives <sup>2</sup>     | 12 |
| xxxx     | CS/ FBE elective <sup>3</sup> | 6  |

1. Elective courses in Information Systems offered by the School of Business.
2. Elective courses offered by the Department of Computer Science, excluding Research Internship.
3. Any Level 2 electives offered by the Department of Computer Science or electives offered by the Faculty of Business and Economics.

In addition, a candidate must satisfy any other requirements stipulated in the University or the Faculty of Engineering regulations.

The degree classification shall be based on the best 183 credits from:

- (a) all core courses in computer science, STAT0302 or STAT1306, BUSI0059 and BUSI0009 (90 credits);
- (b) Industrial training (6 credits);
- (c) all courses in the category of UG5 Requirements (21 credits); and
- (d) the remaining CS / FBE / IS electives with the best results, including at least 30 credits of CS Electives.

For the purpose of degree classification, contributing courses are grouped as follows:

|                              | Years 1 to 3   | Year 4   |
|------------------------------|--|--|
| Core courses (90 credits)    | <ul style="list-style-type: none"> <li>• CSIS1117 Computer programming I</li> <li>• CSIS1118 Foundations of computer science</li> <li>• CSIS1122 Computer programming II</li> <li>• CSIS0278 Introduction to database management systems or BUSI0052 Database development and management</li> <li>• CSIS1119 Introduction to data structures and algorithms</li> <li>• CSIS1120 Computer organization</li> <li>• CSIS0230 Principles of operating systems</li> <li>• CSIS0234 Computer and communication networks or BUSI0073 Data communications and networking management</li> <li>• STAT0302 Business statistics or STAT1306 Introductory statistics</li> <li>• BUSI0059 Information systems analysis and design</li> <li>• BUSI0009 Business policy</li> </ul> | <ul style="list-style-type: none"> <li>• CSIS0250 Design and analysis of algorithms</li> <li>• CSIS0311 Legal aspects of computing</li> <li>• CSIS0801 Final year project</li> </ul> |
| Training (6 credits)         |  | <ul style="list-style-type: none"> <li>• CSIS1412 Industrial training</li> </ul>   |
| UG5 Requirement (21 credits) | <ul style="list-style-type: none"> <li>• BUSI1504 Business communication for the technical professions</li> <li>• CAES1907 Business communication</li> </ul>   |  |

|   |  |  |
|---|--|--|
|   | <ul style="list-style-type: none"> <li>• CBBA0001 Practical Chinese language course for business, economics and finance students</li> <li>• Two University Common Core Courses (12 credits)</li> </ul> |  |
| Remaining CS / FBE / IS electives with the best results | <ul style="list-style-type: none"> <li>• including at least 30 credits of CS Electives</li> </ul>  |  |

CSIS1xxx courses in the syllabuses are level 1 courses, and CSIS0xxx courses are of level 2.

## CORE COURSES

### **CSIS0250. Design and analysis of algorithms (6 credits)**

The course studies various algorithm design techniques, such as divide and conquer, and dynamic programming. These techniques are applied to design highly non-trivial algorithms from various areas of computer science. Topics include: advanced data structures; graph algorithms; searching algorithms; geometric algorithms; overview of NP-complete problems.

Pre/Co-requisites: CSIS1119 or ELEC1501 or ELEC1502

Assessment: 50% continuous assessment, 50% examination.

### **CSIS0311. Legal aspects of computing (6 credits)**

To introduce students to the laws affecting computing and the legal issues arising from the technology. Contents include: the legal system of Hong Kong; copyright protection for computer programs and databases; intellectual property issues on the Internet; data privacy; computer-related crimes.

This course may not be taken with LLAW3065.

Assessment: 30% continuous assessment, 70% examination

### **CSIS0801. Final year project (12 credits)**

Student individuals or groups, during the final year of their studies, undertake full end-to-end development of a substantial project, taking it from initial concept through to final delivery. Topics range from applied software development to assignments on basic research. In case of a team project, significant contribution is required from each member and students are assessed individually, such that each student is given a separate project title. Strict standards of quality will be enforced throughout the project development.

Assessment: 100% continuous assessment.

### **CSIS1412. Industrial training (6 credits)**

Industrial training requires students to spend a minimum of four weeks employed, full-time, as IT interns or trainees. During this period, they are engaged in work of direct relevance to their programme of study. CSIS14102 provides students with practical, real-world experience and represents a valuable complement to their academic training.

Assessment: 100% continuous assessment.

**ELECTIVE COURSES OFFERED BY THE DEPARTMENT OF COMPUTER SCIENCE**

- Level 2 courses offered by the Department of Computer Science.

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**ELECTIVE COURSES OFFERED BY THE FACULTY OF BUSINESS AND ECONOMICS**

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**ELECTIVE COURSES IN INFORMATION SYSTEMS OFFERED BY THE SCHOOL OF BUSINESS**