

SYLLABUS FOR THE DEGREE OF BACHELOR OF ENGINEERING IN COMPUTER SCIENCE AWARDED IN CONJUNCTION WITH THE DEGREE OF BACHELOR OF BUSINESS ADMINISTRATION (INFORMATION SYSTEMS)

This syllabus apply to BBA(IS) graduates admitted to the one-year BEng(CompSc) curriculum in the academic year 2013-14.

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 ¹	6
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 ²	24

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.

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 177 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"> • CSIS1117 Computer programming I • CSIS1118 Foundations of computer science • CSIS1122 Computer programming II • CSIS0278 Introduction to database management systems or BUSI0052 Database development and management • CSIS1119 Introduction to data structures and algorithms • CSIS1120 Computer organization • CSIS0230 Principles of operating systems • CSIS0234 Computer and communication networks or BUSI0073 Data communications and 	<ul style="list-style-type: none"> • CSIS0250 Design and analysis of algorithms • CSIS0311 Legal aspects of computing • CSIS0801 Final year project

	networking management <ul style="list-style-type: none"> • STAT0302 Business statistics or STAT1306 Introductory statistics • BUSI0059 Information systems analysis and design • BUSI0009 Business policy 	
Training (6 credits)		<ul style="list-style-type: none"> • CSIS1412 Industrial training
UG5 Requirement (21 credits)	<ul style="list-style-type: none"> • BUSI1504 Business communication for the technical professions • CAES1907 Business communication • CBBA0001 Practical Chinese language course for business, economics and finance students • Two University Common Core Courses (12 credits) 	
Remaining CS / FBE / IS electives with the best results	<ul style="list-style-type: none"> • including at least 30 credits of CS Electives 	

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. CSIS1412 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

ELECTIVE COURSES IN INFORMATION SYSTEMS OFFERED BY THE SCHOOL OF BUSINESS