

(For students admitted in 2011-12)

## Curriculum for BEng in Computer Science (Information Engineering)

Two options are offered in this program: the Multimedia Computing Option and the Networking Option.

### General Requirements

Students are required to complete the following general requirements for graduation in addition to program specific requirements:

*Required Courses in English Communication*

*General Education Requirements*

*Required Course in Physical Education*

For details please refer to the section "General Requirements" on this website.

### Program Specific Requirements

### Credit(s)

#### Required courses

	COMP 1004	Programming Fundamentals and Methodology	4
	COMP 2012	Object-Oriented Programming and Data Structures	4
	COMP 2611	Computer Organization	4
(2)	COMP 2711	Discrete Mathematical Tools for Computer Science	4
(1)	COMP 2999	Industrial Training	0
	COMP 3031	Principles of Programming Languages	3
	COMP 3111	Introduction to Software Engineering	4
	COMP 3511	Operating Systems	3
	COMP 3711	Design and Analysis of Algorithms	3
	COMP 4982	Final Year Project	7
	ELEC 1100	Introduction to Electro-Robot Design	4
or	ELEC 2410	Basic Electronics	4
	IELM 2200	Engineering Management	3
	IELM 4110	Engineers in Society	1
	MATH 2011	Introduction to Multivariable Calculus	2
	MATH 2111	Introduction to Linear Algebra	2
	MATH 2351	Introduction to Ordinary Differential Equations	2

#### *For Multimedia Computing Option:*

	COMP 4411	Computer Graphics	3
	COMP 4421	Image Processing	3
	COMP 4431	Multimedia Computing	3
	MATH 2411	Applied Statistics	4
or	ELEC 2600	Probability and Random Processes in Engineering	4

CURRICULUM FOR UNDERGRADUATE PROGRAMS

*For Networking Option:*

COMP 4621	Computer Communication Networks I	3
COMP 4622	Computer Communication Networks II	3
ELEC 2100	Signals and Systems	4
ELEC 2600	Probability and Random Processes in Engineering	4
ELEC 3100	Signal Processing and Communications	4

Elective courses

	Elective types		Minimum no. of courses	Minimum total credits
(3)	COMP	Computer Science Elective		
		<i>For Multimedia Computing Option</i>	3	9
		<i>For Networking Option</i>	1	3
(3)	COMP/ ELEC/ MATH	Computer Science Elective/ Electrical and Electronic Engineering Elective/ Mathematics Elective	2	6
(4)	SB&M	Business and Management Elective	1	3
(3,4)	FREE	Free Elective		
		<i>For Multimedia Computing Option</i>	-	2
		<i>For Networking Option</i>	-	3

Other Requirements

(5)	COMP 1900	Academic and Professional Development I	0
	COMP 2900	Academic and Professional Development II	0
	COMP 3900	Academic and Professional Development III	0

Notes:

- (1) Students are required to complete and pass a prescribed training program within the normal length of study. Details of the program, its requirements and schedule will be announced on the website of the Industrial Training Center (<http://www.ust.hk/itc>) or website of the department in the first year Fall term. Training normally takes place in the Winter and Summer terms starting from the first year of study. For recording the overall training results, students are normally registered for the course in their last term of study.
- (2) With prior approval from the COMP UG Coordinator, students may take MATH 2343 to fulfill the requirement of COMP 2711.
- (3) COMP 1001, COMP 1002 and COMP 1003 cannot be used to count toward the COMP elective requirement. ELEC and MATH electives must be at 2000-level or higher. ENGG 4950 can be used to count toward the COMP, ELEC or FREE elective requirement. Students on the COMP honors track may earn one extra credit through taking COMP 3711H in replacement of COMP 3711. Students who have earned a total of 3 extra credits through taking COMP 3711H, COMP 2971, COMP 3971 or COMP 4971 may reduce the COMP elective requirements by one course and three credits.
- (4) Certain courses cannot be used to count toward the SB&M or FREE elective requirements. Students must check the departmental web site at <http://www.cse.ust.hk/ug/faq-registration/> for the list of courses in concern.
- (5) Students admitted through the School-based Admission Scheme are not required to take COMP 1900 in the Fall term of the first year.

A minimum of 101 credits is required for the BEng program in Computer Science (Information Engineering).