(For students admitted in 2012-13 under the 3-year degree)

Curriculum for BEng in Computer Engineering - Embedded Systems Option

Two program sequences, namely Sequence A and B, are designed to take care of students admitted with different mathematics background. Sequence A is intended for students with AL Mathematics background, while Sequence B is for those without AL Mathematics background who are required to take an additional mathematics course.

Students must declare their intention to enroll in the option no later than the last day of the add/drop period in the first regular term of their final year of study.

General Requirements

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

Required Courses in English Communication
Common Core 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
	or	COMP 2012H	OOP and Data Structures (Honors Study Track)**	4**
		COMP 2611	Computer Organization	4
	or	ELEC 2300	Computer Organization	4
(1)		COMP 2711	Discrete Mathematical Tools for Computer Science	4
(1)	or	COMP 2711H	Honors Discrete Mathematical Tools for Computer Science	4
		COMP 3111	Software Engineering	4
	or	COMP 3111H	Honors Software Engineering	4
		COMP 3511	Operating Systems	3
		COMP 3711	Design and Analysis of Algorithms	3
	or	COMP 3711H	Honors Design and Analysis of Algorithms	4
		COMP 4521	Embedded Systems Software	3
		COMP 4611	Design and Analysis of Computer Architectures	3
		COMP 4621	Computer Communication Networks I	3
	or	ELEC 4120	Computer Communication Networks	3

(3)		COMP 4991	Computer Engineering Final Year Project	8
(3)	or	ELEC 4903	Computer Engineering Final Year Project	8
		ELEC 1100	Introduction to Electro-Robot Design	4
	or	ELEC 1200	A System View of Communications: from Signals to Packets	4
(2)		ELEC 1970	Industrial Training	0
		ELEC 2100	Signals and Systems	4
		ELEC 2200	Digital Circuits and Systems	4
		ELEC 2600	Probability and Random Processes in Engineering	4
		ELEC 3200	System Modeling, Analysis and Control	4
		ELEC 3300	Introduction to Embedded Systems	4
		ELEC 4310	Embedded System Design	4
		ELEC 4410	CMOS VLSI Design	3
		IELM 2200	Engineering Management	3
		IELM 4110	Engineers in Society	1
		MATH 2011	Introduction to Multivariable Calculus	3
		MATH 2111	Matrix Algebra and Applications	3
	For Sequence B:			
		MATH 1018	Concise Calculus	4

Elective courses

	Elective types		Minimum no. of courses	Minimum total credits
(4,5)	ENGG/SCIE	Engineering Elective/Science Elective *For Sequence A*	1	3

Other Requirements

(6)	ELEC 2930	Academic and Professional Development I	0
	ELEC 3930	Academic and Professional Development II	0
	ELEC 4930	Academic and Professional Development III	0

***Remarks on course(s):*

- COMP 1004: The course was last offered in 2012-13 and was deleted subsequently.
- COMP 2012H: The course title will be changed to "Honors Object-Oriented Programming and Data Structures" starting from Fall, 2014-15.
- COMP 2012H: The credit value will be changed to 5 starting from Fall, 2014-15.

Notes:

(1) With prior approval from the CPEG UG coordinator, students may take MATH 2343 to fulfill the requirement of COMP 2711/COMP 2711H.

(2) 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.

(3) Work normally commences in summer following the second year. Students are required to pursue a Final Year Project in embedded system topics. CPEG students who follow the honors study track of COMP courses may choose to take COMP 4992/ELEC 4904 to fulfill the requirement of COMP 4991/ELEC 4903.

(4) Only ENGG or SCIE courses at 2000-level or above will be accepted.

(5) Certain courses cannot be used to count toward the ENGG/SCIE requirement. Students must check the program website for the list of courses in concern.

(6) Students admitted through the School-based Admission Scheme do not need to enroll in ELEC 2930 for the Fall term of the first year.

A minimum of 103 credits is required for the BEng program in Computer Engineering - Embedded Systems Option. For students who are required to take MATH 1018, the minimum total required is 104 credits.