The Hong Kong University of Science and Technology

School of Engineering

An Example on Student's Pathway (as of Fall 2020-21)

<< *Declaration of major*

School:		**School of Engineering**		Student's Pathways (i.e. Study Pattern)										
Department:		**Computer Engineering Program Office**		Pathway 1										
Program:		**BEng in Computer Engineering**		Background: HKDSE 4 Core + 2 Elec (incl. 1/2x PHYS)□ □ Profile: Normative. Students to graduate in BEng CPEG with Research Option										
Course □ Offering□ Dept□ (course code prefix)	Course Code	Course Title / Courses List	Credits	Year 1 Fall	Year 1 Spring	Year 2 Fall	Year 2 Spring	Year 3 Fall	Year 3 Spring	Year 4 Fall	Year 4 Spring	**Sub-total**	**Remarks**	
Major Requirements														
Engineering Fundamental Courses														
COMP□	□	Note: COMP 1021 OR COMP 1022P OR COMP 1022Q□	3											
COMP□	1021□	Introduction to Computer Science□	3	3								3		
COMP□	1022P□	Introduction to Computing with Java□	3											
COMP	1022Q**	Introduction to Computing with Excel VBA	3											
ENGG	1010	Academic Orientation	0	0	0							0		
LANG	2030	Technical Communication I	3				3					3		
MATH□	□	Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND□	4-7											
□	□	(MATH 1014 OR MATH 1024)] OR [MATH 1020]□												
MATH□	1012□	Calculus IA□	4											
MATH□	1013□	Calculus IB□	3	3	3							6		
MATH□	1014□	Calculus II□	3											
MATH□	1020□	Accelerated Calculus□	4											
MATH□	1023□	Honors Calculus I□	3											
MATH	1024	Honors Calculus II	3											
MATH	2011	Introduction to Multivariable Calculus	3					3				3		
MATH	2111	Matrix Algebra and Applications	3			3						3		
PHYS□	□	Note: PHYS 1112 OR PHYS 1312□	3											
PHYS□	1112□	General Physics I with Calculus□	3	3								3		
PHYS	1312	Honors General Physics I	3											
PHYS□	□	Note: PHYS 1114 OR PHYS 1314□	3											
PHYS□	1114□	General Physics II□	3		3							3		
PHYS	1314	Honors General Physics II	3											
SENG		Engineering Introduction course (If the students take an introduction course included in their major, this course can be counted towards their major requirement.)	3-4		3							3		
		Required credits for Engineering Fundamental Courses	25-29									27		
Major Required Courses and Electives														
CPEG□	□	Note: [CPEG 1971 AND (CPEG 4901 OR CPEG 4902 OR□	6											
□	□	CPEG 4911 OR CPEG 4912)] OR [CPEG 4910] (Students□												
□	□	taking the Research Option must take either CPEG 4902 or□												
□	□	CPEG 4912)□												
CPEG□	1971□	Industrial Experience□	0							3	3	6		
CPEG□	4901□	Computer Engineering Final Year Project in COMP□	6											
CPEG□	4902□	Computer Engineering Final Year Thesis in COMP□	6											
CPEG□	4910□	Co-op Program□	6											
CPEG□	4911□	Computer Engineering Final Year Project in ELEC□	6											
CPEG	4912	Computer Engineering Final Year Thesis in ELEC	6											
CPEG	2930	Academic and Professional Development I	0			0	0					0		
CPEG	3930	Academic and Professional Development II	0					0	0			0		
COMP□	□	Note: (COMP 2011 AND COMP 2012) OR COMP 2012H□	5-8											
COMP□	2011□	Programming with C++□	4			4		4				8		
COMP□	2012□	Object-Oriented Programming and Data Structures□	4											
COMP	2012H	Honors Object-Oriented Programming and Data Structures	5											
COMP/ELEC□	□	Note: COMP 2611 OR ELEC 2300□	4											
COMP□	2611□	Computer Organization□	4				4					4		
ELEC	2300	Computer Organization	4											
COMP/ELEC□	□	Note: COMP 2711 OR COMP 2711H OR ELEC 2600□	4											
COMP□	2711□	Discrete Mathematical Tools for Computer Science□	4					4				4		
COMP□	2711H□	Honors Discrete Mathematical Tools for Computer Science□	4											
ELEC	2600	Probability and Random Processes in Engineering	4											
COMP	3511	Operating Systems	3						3			3		
ELEC□	□	Note: ELEC 1100 OR ELEC 1200□	4											
ELEC□	1100□	Introduction to Electro-Robot Design□	4			4						4		
ELEC	1200	A System View of Communications: from Signals to Packets	4											
ELEC□	□	Note: ELEC 2100 OR ELEC 2400□	4											
ELEC□	2100□	Signals and Systems□	4				4					4		
ELEC	2400	Electronic Circuits	4											
ELEC	2200	Digital Circuits and Systems	4				4					4		
ELEC	3300	Introduction to Embedded Systems	4						4			4		
ENGG	2010	Engineering Seminar Series	0			0	0	0	0			0		
LANG□	□	Note: LANG 4030 OR LANG 4031□	3											
LANG□	4030□	Technical Communication II for CSE & CPEG□	3							3		3		
LANG	4031	Technical Communication II for ECE & CPEG	3											
COMP/ELEC		CPEG Restricted Elective (1 course from the specified elective list)	3							3		3	Students should refer to the department about offering term of each elective.	
COMP/ELEC		Area Courses (At least 4 courses from the specified elective list , of which at least 2 courses should be taken from one single area and at least 2 courses outside that area. Courses taken as Major Required Courses may not be counted towards the elective requirement.)	15						4	4	7	15		
		Required credits for Major Required Courses and Electives	59-62									62		
Option Requirements														
Research Option														
COMP/ELEC		CPEG Electives (1 PG-level course as approved by advisor)	3							3		3	Students can take the course in Year 2 or Year 3.	
COMP/ELEC/UROP		Research Electives [Students should take either (ELEC 5900 AND UROP 1100) or a 3-credit COMP 5000-level course to fulfill this requirement.]	2-3			[1]	[1]	1	1	[3]		2	Students can take the courses in Year 2 or Year 3.	
		Required credits for Research Option	5-6									5		
University CORE														
CORE	C3 - C12	U CORE - Others	30	3	3	6	3	6	6		3	30		
CORE	C1 & C2	U CORE - English Language	6	3	3							6		
		Sub-total for University CORE	36									36		
				Term load (excl. free credits)										
				15	15	17	18	18	18	16	13			
				125 (w/o option) | 130 (w/ option)#										

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Notes:

[ ] denotes the course is also offered in other terms as indicated and students may take the course in one of these terms subject to advice by the program office.

To graduate, students should complete at least 120 credits in approved courses. They may need to take courses additional to the required and elective courses as specified above to meet this minimum credit requirem

**Remarks on course(s):

- COMP 1022Q: The course was last offered in 2019-20 and was deleted subsequently.

>> The content of this example is not necessarily equivalent to a complete list of graduation requirements of the program. Students should refer to the Program Catalog/UG Curriculum Handbook for updated graduation requirements. For up-to-date information on course offering and scheduling, students should check it out from respective School and Department.