The Hong Kong University of Science and Technology
School of Engineering
An Example on Student's Pathway (as of Fall 2022-23)

<< Declaration of major

School:		School of Engineering		Student's Pathways (i.e. Study Pattern)								
Department:		Department of Computer Science and Engineering		Pathway 1								
Program:		BEng in Computer Science + Digital Media and Creative Arts		Background: ☐ ☐ Profile:								

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
Major Requirements												
Engineering Fundamental Courses												
COMP	1021	Note: COMP 1021 OR COMP 1022P	3									
COMP	1021	Introduction to Computer Science	3	3								3
COMP	1022P	Introduction to Computing with Java	3									
ENGG	1010	Academic Orientation	0	0	0							0
CHEM/LIFS/PHYS ☐ ☐	☐ ☐	Note: CHEM 1004 OR CHEM 1010 OR CHEM 1020 OR☐ LIFS 1901 OR PHYS 1001 OR PHYS 1112 OR☐ PHYS 1312☐	3									
CHEM ☐	1004 ☐	Chemistry in Everyday Life☐	3									
CHEM ☐	1010 ☐	General Chemistry IA☐	3									
CHEM ☐	1020 ☐	General Chemistry IB☐	3		3							3
LIFS ☐	1901 ☐	General Biology I☐	3									
PHYS ☐	1001 ☐	Physics and the Modern Society☐	3									
PHYS ☐	1112 ☐	General Physics I with Calculus☐	3									
PHYS	1312	Honors General Physics I	3									
LANG	2030	Technical Communication I	3			3						3
MATH ☐ ☐	☐ ☐	Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND☐ (MATH 1014 OR MATH 1024)] OR [MATH 1020]☐	4-7									
MATH ☐	1012 ☐	Calculus IA☐	4									
MATH ☐	1013 ☐	Calculus IB☐	3									
MATH ☐	1014 ☐	Calculus II☐	3	3	3							6
MATH ☐	1020 ☐	Accelerated Calculus☐	4									
MATH ☐	1023 ☐	Honors Calculus I☐	3									
MATH	1024	Honors Calculus II	3									
MATH	2111	Matrix Algebra and Applications	3			3						3
SENG		Engineering Introduction course	3-4									0
		Required credits for Engineering Fundamental Courses	19-23	6	6	6	0	0	0	0	0	18
Major Required Courses and Electives												
COMP ☐ ☐ ☐	☐ ☐	Note: [COMP 1991 AND (COMP 4981 OR COMP 4981H)]☐ OR [COMP 4910] (Students taking the Researcher Option☐ must take COMP 4981H)☐	6									
COMP ☐	1991 ☐	Industrial Experience☐	0									
COMP ☐	4910 ☐	Co-op Program☐	6							3	3	6
COMP ☐	4981 ☐	Final Year Project☐	6									
COMP	4981H	Final Year Thesis	6									
COMP ☐	☐	Note: (COMP 2011 AND COMP 2012) OR COMP 2012H☐	5-8									
COMP ☐	2011 ☐	Programming with C++☐	4									
COMP ☐	2012 ☐	Object-Oriented Programming and Data Structures☐	4			4	4					8
COMP	2012H	Honors Object-Oriented Programming and Data Structures	5									
COMP	2611	Computer Organization	4				4					4
COMP ☐	☐	Note: COMP 2711 OR COMP 2711H☐	4									
COMP ☐	2711 ☐	Discrete Mathematical Tools for Computer Science☐	4			4						4
COMP	2711H	Honors Discrete Mathematical Tools for Computer Science	4									
COMP ☐	☐	Note: COMP 3111 OR COMP 3111H☐	4									
COMP ☐	3111 ☐	Software Engineering☐	4					4				4
COMP	3111H	Honors Software Engineering	4									
COMP	3511	Operating Systems	3						3			3
COMP ☐	☐	Note: COMP 3711 OR COMP 3711H☐	3-4									
COMP ☐	3711 ☐	Design and Analysis of Algorithms☐	3						3			3
COMP	3711H	Honors Design and Analysis of Algorithms	4									
COMP ☐ ☐ ☐	☐ ☐	Note: Students are required to take COMP 4900 for every regular☐ term in which they are in residency at HKUST with major☐ in COMP☐	0									
COMP	4900	Academic and Professional Development	0	0	0	0	0	0	0	0	0
ELEC/IEDA/MATH ☐ ☐	☐ ☐	Note: ELEC 2600 OR IEDA 2520 OR IEDA 2540 OR☐ MATH 2411 OR MATH 2421 OR MATH 2431☐	3-4									
ELEC ☐	2600 ☐	Probability and Random Processes in Engineering☐	4									
IEDA ☐	2520 ☐	Probability for Engineers☐	3									
IEDA ☐	2540 ☐	Statistics for Engineers☐	3				4					4
MATH ☐	2411 ☐	Applied Statistics☐	4									
MATH ☐	2421 ☐	Probability☐	4									
MATH	2431	Honors Probability	4									
ENGG	2010	Engineering Seminar Series	0			0	0	0	0			0
LANG	4030	Technical Communication II for CSE & CPEG	3							3		3
COMP		COMP Electives (5 courses from the specified elective list, of which at least 3 courses should be taken from 1 area and at least 2 courses outside that area. Students may use at most one course under Deep Learning Applications (COMP 4471 and COMP 5223) to count towards this elective requirement.)	15						3	6	6	15
COMP		COMP 2000-level or above Elective (Any course(s) of the subject and level as specified)	3								3	3
		Required credits for Major Required Courses and Electives	56-61	0	0	8	12	7	6	12	12	57

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School:		School of Engineering		Student's Pathways (i.e. Study Pattern)								
Department:		Department of Computer Science and Engineering		Pathway 1								
Program:		BEng in Computer Science + Digital Media and Creative Arts		Background: ☐								
				Profile:								

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
COMP/ISOM		Note: COMP 1021 OR COMP 1022P OR ISOM 3230	3									
COMP	1021	Introduction to Computer Science	3	(3)								0
COMP	1022P	Introduction to Computing with Java	3									
ISOM	3230	Business Applications Programming	3									
MATH		Note: MATH 1004 OR MATH 1020 OR MATH 1024	3-4									
MATH	1014	Calculus II	3		(3)							0
MATH	1020	Accelerated Calculus	4									
MATH	1024	Honors Calculus II	3									
COMP		Note: COMP 2011 OR COMP 2012 OR COMP 2012H	4-5									
COMP	2011	Programming with C++	4			(4)						0
COMP	2012	Object-Oriented Programming and Data Structures	4									
COMP	2012H	Honors Object-Oriented Programming and Data Structures	5									
Required credits for DMCA Recommended Background Courses			10-12	0	0	0	0	0	0	0	0	0

Major Required Courses and Electives

Course Offering Dept	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
HUMA		Note: HUMA 1100 OR HUMA 1102 OR HUMA 1650 OR HUMA 1660 OR HUMA 2104 OR HUMA 2400	3									
HUMA	1100	Music of the World	3									
HUMA	1102	Enjoyment of Classical Music	3									
HUMA	1650	Appreciation of Western Art	3						3			3
HUMA	1660	Introduction to Chinese Art	3									
HUMA	2104	Music Theory I—Introduction to Tonal Music	3									
HUMA	2400	Masterpieces of Chinese Literature	3									
EMIA	2010B	Cross-disciplinary Seminar in Digital Media and Creative Arts	0			0						0
EMIA	2020	Cross-disciplinary Design Thinking	3					3				3
EMIA	2200	Introduction to Digital Media	3					3				3
EMIA		Note: EMIA 4990 OR EMIA 4991	0-3									
EMIA	4990	Interdisciplinary Capstone Project	0							0	0	0
EMIA	4991	Interdisciplinary Capstone Project	3									
SBM/SENG/ SSCI/IPO		Note: Students taking EMIA4990 should take a minimum of 12 credits; students taking EMIA4991 should take a minimum of 9 credits DMCA Electives	9-12						6	3	3	12
Required credits for DMCA Required Courses and Electives			21	0	0	0	0	6	9	3	3	21

University CORE

	Course Code	Course Title	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
CORE	C5 - C10	U CORE - Others	18			3	3	3	3	3	3	18
CORE	C3-C4	U CORE - Cognitive and Behavioral Foundations of University Education (CTDL, HMW)	6	3	3							6
CORE	C1 - C2	U CORE - English Language	6	3	3							6
Sub-total for University CORE			30	6	6	3	3	3	3	3	3	30
				Term load (excl. free credits)								
				12	12	17	15	16	18	18	18	
				126#								

Note:

<< Declaration of major

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 requirement.

>> 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.

The Hong Kong University of Science and Technology
School of Engineering
An Example on Student's Pathway (as of Fall 2022-23)

<< *Declaration of major*

School:		School of Engineering		Student's Pathways (i.e. Study Pattern)									
Department:		Division of Integrative Systems and Design		Pathway 1									
Program:		BSc in Integrative Systems and Design + Digital Media and Creative Arts		Background: HKDSE 4 Core + 2 Elec									
				Profile:									

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													
Major Required Courses and Electives													
ISDN	1002	Redefining Problems for the Real Needs	3	3								3	
ISDN	1004	Sketching	1	1								1	
ISDN	1006	Human-centered Innovation	3		3							3	
ISDN	2001	Second Year Design Project I	1			1						1	
ISDN	2002	Second Year Design Project II	4				4					4	
ISDN	2200	Systems Thinking and Design	3			3						3	
ISDN	2300	Introduction to 3D Design	3	3								3	
ISDN	2400	Physical Prototyping	3		3							3	
ISDN	3001	Third Year Design Project I	4					4				4	
ISDN	3002	Third Year Design Project II	4						4			4	
ISDN	4001	Final Year Design Project I	5							5		5	
ISDN	4002	Final Year Design Project II	5								5	5	
COMP / COMP / COMP	/ 1021 / 1022P	Note: COMP 1021 OR COMP 1022P / Introduction to Computer Science / Introduction to Computing with Java	3 / 3 / 3		3*							3	
ENGG	1010	Academic Orientation	0	0	0							0	
LANG	2030	Technical Communication I	3			3						3	
LANG	4032	Technical Communication II for IEDA and ISDN	3						3			3	
MATH / / / / MATH / MATH / MATH / MATH / MATH / MATH	/ / / / 1012 / 1013 / 1014 / 1020 / 1023 / 1024	Note: [MATH 1012 OR MATH 1013 OR MATH 1023 AND (MATH 1014 OR MATH 1024)] OR [MATH 1020] (Subject to approval of the program office, MATH 1014/1024 may be replaced by a COMP course) / Calculus IA / Calculus IB / Calculus II / Accelerated Calculus / Honors Calculus I / Honors Calculus II	4-7 / 4 / 3 / 3 / 4 / 3 / 3	3*	3							6	1) For students who chose the technical stream of Computer Science, MATH1014 is not a compulsory course.
PHYS / / PHYS / PHYS / PHYS / PHYS	/ / 1001 / 1111 / 1112 / 1312	Note: PHYS 1001 OR PHYS 1111 OR PHYS 1112 OR PHYS 1312 / Physics and the Modern Society / General Physics I / General Physics I with Calculus / Honors General Physics I	3 / 3 / 3 / 3 / 3	3*								3	
ISDN		Project-related Electives (Courses from the specified elective list. Students should seek approval of their advisor for the choices of courses.)	22			6	3	6	2	3	2	22	
ISDN/ENGG/IEDA		Design Electives (Courses from the specified elective list)	5				2	3				5	
ISDN/ENTR/IEDA/SBM		Product Management and Entrepreneurship Electives (Courses from the specified elective list)	9						3	3	3	9	
Required credits for Major Required Courses and Electives			91-94	13	12	13	9	13	12	11	10	93	
DMCA Requirements													
Recommended Background Courses													
COMP/ISOM / COMP / COMP / ISOM	/ 1021 / 1022P / 3230	Note: COMP 1021 OR COMP 1022P OR ISOM 3230 / Introduction to Computer Science / Introduction to Computing with Java / Business Applications Programming	3 / 3 / 3 / 3		(3)							0	
MATH / MATH / MATH / MATH	/ 1014 / 1020 / 1024	Note: MATH 1004 OR MATH 1020 OR MATH 1024 / Calculus II / Accelerated Calculus / Honors Calculus II	3-4 / 3 / 4 / 3		(3)							0	
COMP / COMP / COMP / COMP	/ 2011 / 2012 / 2012H	Note: COMP 2011 OR COMP 2012 OR COMP 2012H / Programming with C++ / Object-Oriented Programming and Data Structures / Honors Object-Oriented Programming and Data Structures	4-5 / 4 / 4 / 5				4					4	
Required credits for DMCA Recommended Background Courses			10-12	0	0	0	4	0	0	0	0	4	
Major Required Courses and Electives													
HUMA / HUMA / HUMA / HUMA / HUMA / HUMA / HUMA	/ 1100 / 1102 / 1650 / 1660 / 2104 / 2400	Note: HUMA 1100 OR HUMA 1102 OR HUMA 1650 OR HUMA 1660 OR HUMA 2104 OR HUMA 2400 / Music of the World / Enjoyment of Classical Music / Appreciation of Western Art / Introduction to Chinese Art / Music Theory I—Introduction to Tonal Music / Masterpieces of Chinese Literature	3 / 3 / 3 / 3 / 3 / 3 / 3					3				3	
EMIA	2010B	Cross-disciplinary Seminar in Digital Media and Creative Arts	0			0						0	
EMIA	2020	Cross-disciplinary Design Thinking	3					3				3	
EMIA	2200	Introduction to Digital Media	3					3				3	
EMIA / EMIA / EMIA	/ 4990 / 4991	Note: EMIA 4990 OR EMIA 4991 / Interdisciplinary Capstone Project / Interdisciplinary Capstone Project	0-3 / 0 / 3						0	0	0	0	
SBM/SENG/ SSCI/IPO		Note: Students taking EMIA4990 should take a minimum of 12 credits; students taking EMIA4991 should take a minimum of 9 credits / DMCA Electives	9-12						6	3	3	12	
Required credits for DMCA Required Courses and Electives			21	0	0	0	0	6	9	3	3	21	
University CORE (Revamped)													
CORE	C5 - C10	U CORE - Others	18			3	3	3	3	3	3	18	
CORE	C3-C4	U CORE - Cognitive and Behavioral Foundations of University Education (CTDL, HMW)	6	3	3							6	
CORE	C1 - C2	U CORE - English Language	6	3	3							6	
Sub-total for University CORE			30	6	6	3	3	3	3	3	3	30	

	Term load (excl. free credits)							
	19	18	16	16	22	24	17	16
	148#							

<< *Declaration of major*

Notes:

* Courses offered in winter term

\# 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 requirement.

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