BEng (Hons) Information Engineering Recommended Study Plan for Students Entering Major in 2015/16

Minimum Graduation Requirements

	Normative 4-year degree	Advanced Standing I (ASI)	Advanced Standing II (ASII)
	Credit Units (CUs)	Credit Units (CUs)	Credit Units (CUs)
Core courses	63 ^a	63 ^a	60°
Elective courses	12 ^b	12 ^b	12 ^b
University English Requirements	6 ^c	6 ^c	3
Chinese Civilization	3	3	Not required
Gateway Education (Area Requirements)	12 ^e	6	3
College/School-specified Courses	9 ^f	6^	6^
College Requirement	6 ^g	0	0
Free Electives	9 ^h	See note h	See note h
Minimum number of credits required for	120 ^d	96 ^d	84
the award:			

Note:

- a. Including EE4093 Engineering Training I for Information Engineering, EE4095 Engineering Training II for Information Engineering, and EE3013 Engineers in Society, which carry no credit unit. CS2311 (3 CUs) has been waived for Advanced Standing II students.
- b. Students are required to take at least FOUR electives (12 CUs) of which no more than ONE Level-3 elective should be taken. For details of the course pre-requisite requirement, please refer to http://www.ee.cityu.edu.hk/main/student/ for major and course information.
- c. Normative 4-year degree and ASI students entering without Level 4 in HKDSE English Language or Grade D in HKALE AS Use of English are required to take a year-long EL0200 English for Academic Purposes (EAP) of 6 credit units before progressing to GE1401 University English and GE2410 English for Engineering. Credits earned from the EAP course will not be counted towards the minimum credit units required for graduation nor be calculated in students' CGPA. Students who are not admitted through JUPAS are invited upon enrolment to take the English Placement Test or to provide proof of alternative qualifications to be exempted from ELC course (http://www.cityu.edu.hk/elc/courses exemption.html).
- d. Normative 4-year degree and ASI students entering without Level 4 in HKDSE Chinese Language or Grade D in HKALE AS-level Chinese Language and Culture are required to take a 3-credit-unit course CHIN1001 University Chinese I. The credits earned will not be counted towards the minimum credit units required for graduation nor be calculated in students' CGPA.
- e. Normative 4-year degree students are required to take a minimum of 3 CUs from each of the following specified areas 1/ Arts and Humanities, 2/ Study of Societies, Social and Business Organizations, and 3/ Science and Technology.

f. College/School-specified courses for fulfilling the Gateway Education requirement

MA1200/ MA1300	Calculus and Basic Linear Algebra I/ Enhanced Calculus and Linear Algebra I	3 credit units
MA1201/ MA1301	Calculus and Basic Linear Algebra II/ Enhanced Calculus and Linear Algebra II	3 credit units
CS1102/ CS1302	Introduction to Computer Studies/ Introduction to Computer Programming	3 credit units

[^] ASI and ASII students are required to take 6 credit units of MA courses from the above pairs. Students exempted from either one or both of the above MA courses should take any course(s) not within the Major Requirement (including core courses and electives) to make up for the minimum curriculum requirement.

- g. Normative 4-year degree students are required to take two courses (6 CUs) out of three for their College requirement. Courses include AP1201 General Physics I, BCH1100 Chemistry, and BCH1200 Discovery in Biology.
- h. Normative 4-year Degree students are required to take 9 credit units of free electives to make up the minimum credits requirement, while Advanced Standing I students may choose to earn credits from free electives or minor courses which will be counted in addition to the minimum credit units for graduation, unless course exemption has been granted to course(s) in the degree programme requirement. Advanced Standing II students will not have spare credits to take free electives unless course exemption has been granted in degree programme requirement.

Year 2 (Semester A)

Code	Title	CU	Pre-requisite	Precursor	Course plan f	or students of differe	nt qualifications
						Normative 4-year/AS I/A	ASII
		!			MA1200/MA	1300 & MA1201/ MA13	01 Requirement
					(Math I and Math II in sh	iort)
		!			<u>Normative</u>	<u>Normative</u>	<u>Normative</u>
		!			Completed both	Still require Math II	Still require both
		!			Math I & II	ASI & ASII	Math I & II
		!			ASI & ASII	Math I Exempted	ASI & ASII
		!			Math I & II		No Exemption
					Exempted		granted on Math I & II
EE2000	Logic Circuit Design	3	Nil	Nil	3	3	3
EE2108	Engineering Analysis	3	(MA1200 or MA1300) *	(MA1201	3	3	0-3
				or			
				MA1301)*			
CS2311#	Computer Programming	3	(CS1102 or CS1302) *	Nil	0-3	0-3	0-3
MA2001	Multi-variable Calculus and Linear	3	(MA1200 or MA1300) &	Nil	3	N.A.	N.A.
	Algebra		(MA1201 or MA1301) or A				
			Pass in AL Pure Maths or				
			Applied Maths or				
			equivalent				
MA1200	Calculus and Basic Linear Algebra I	3	Nil	Nil	N.A.	N.A.	3
		(note f)					
MA1201	Calculus and Basic Linear Algebra II	3	MA1200	Nil	N.A.	3	N.A.
		(note f)					
			Technical Course	Total (CUs):	9-12	9-12	6-12

Students are advised to complete the following degree and language requirements as early as possible alongside those technical courses as advised above, subject to credit limit and their offering schedule. Please refer to p.6 for corresponding requirements for Normative 4-year degree, ASI and ASII students.

EL0200 English for Academic Purposes (6 credit units)#

- GE1401 University English (3 credit units)#
- GE2410 English for Engineering (3 credit units)
- GE1501 Chinese Civilization History and Philosophy (3 credit units)#
- CHIN1001 University Chinese I (3 credit units)#
- Gateway Education (Area Requirements)
- Free Electives (9 credit units)*

Maximum Total (CUs)	18	18	18	

^{*} Applicable to Normative 4-year degree students only

[#] Not applicable to Advanced Standing II students

Year 2 (Semester B)

Code	Title	CU	Pre-requisite	Precursor	Course plan fo	r students of differer	nt qualifications
					N	Iormative 4-year/AS I/A	SII
					MA1200/MA1	300 & MA1201/ MA130	01 Requirement
					(N	Nath I and Math II in sho	ort)
					<u>Normative</u>	<u>Normative</u>	<u>Normative</u>
					Completed both	Still require Math II	Still require both
					Math I & II	ASI & ASII	Math I & II
					ASI & ASII	Math I Exempted	ASI & ASII
					Math I & II Exempted		No Exemption
							granted on Math I & II
EE2004	Microcomputer Systems	3	Nil	EE2000 & CS2311	3	3	3
EE2108	Engineering Analysis	3	(MA1200 or MA1300)*	(MA1201 or MA1301)*	N.A.	N.A.	3
EE2301	Basic Electronic Circuits	3	Nil	Nil	3	3	3
EE2311	Object-Oriented	3	CS2311	Nil	3	3	3
	Programming & Design						
MA3001	Differential Equations	3	MA2001	Nil	3	N.A.	N.A.
MA2001	Multi-variable Calculus and Linear Algebra	3	(MA1200 or MA1300) & (MA1201 or MA1301) or A Pass in AL Pure Maths or Applied Maths or equivalent	Nil	N.A.	3	N.A.
MA1201	Calculus and Basic Linear Algebra II	3	MA1200	Nil	N.A.	N.A.	3
		•	Technical	Course Total (CUs):	12	12	15

Students are advised to complete the following degree and language requirements as early as possible alongside those technical courses as advised above, subject to credit limit and their offering schedule. Please refer to p.6 for corresponding requirements for Normative 4-year degree, ASI and ASII students. EL0200 English for Academic Purposes (6 credit units)#

- GE1401 University English (3 credit units)#
- GE2410 English for Engineering (3 credit units)
- GE1501 Chinese Civilization History and Philosophy (3 credit units)#
- CHIN1001 University Chinese I (3 credit units)#
- Gateway Education (Area Requirements)
- Free Electives (9 credit units)*

Maximum Total (CUs): 18 18 18

^{*} Applicable to Normative 4-year degree students only

[#] Not applicable to Advanced Standing II students

Year 2 (Summer)

Code	Title	CU	Pre-requisite	Precursor	Course plan fo	r students of differer	t qualifications
					N	ormative 4-year/ASI/AS	SII
					MA1200/MA1	300 & MA1201/ MA130	1 Requirement
					(N	lath I and Math II in sho	ort)
					<u>Normative</u>	<u>Normative</u>	<u>Normative</u>
					Completed both	Still require Math II	Still require both
					Math I & II	ASI & ASII	Math I & II
					ASI & ASII	Math I Exempted	ASI & ASII
					Math I & II Exempted		No Exemption
							granted on Math I & II
EE4093	Engineering Training I for	0	CS2311	Nil	0	0	0
	Information Engineering						
MA3001	Differential Equations	3	MA2001	Nil	N.A.	3	N.A.
	Technical Course Total (CUs):					3	0

Students are advised to complete the following degree and language requirements as early as possible alongside those technical courses as advised above, subject to credit limit and their offering schedule. Please refer to p.6 for corresponding requirements for Normative 4-year degree, ASI and ASII students.

- EL0200 English for Academic Purposes (6 credit units)#
- GE1401 University English (3 credit units)#
- GE2410 English for Engineering (3 credit units)
- GE1501 Chinese Civilization History and Philosophy (3 credit units)#
- CHIN1001 University Chinese I (3 credit units)#
- Gateway Education (Area Requirements)
- Free Electives (9 credit units)*

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	Maximum Total (CUs):	7	7	7

^{*} Applicable to Normative 4-year degree students only

[#] Not applicable to Advanced Standing II students

Year 3 (Semester A)

Code	Title	CU	Pre-requisite	Precursor	Course plan fo	r students of differen	nt qualifications
					N	Normative 4-year/ASI/A	SII
					MA1200/MA1	300 & MA1201/ MA130	01 Requirement
					(N	Math I and Math II in sho	ort)
					<u>Normative</u>	<u>Normative</u>	<u>Normative</u>
					Completed both	Still require Math II	Still require both
					Math I & II	ASI & ASII	Math I & II
					ASI & ASII	Math I Exempted	ASI & ASII
					Math I & II Exempted		No Exemption
							granted on Math I & II
EE2331	Data Structures and Algorithms	3	CS2311	Nil	3	3	3
EE3009	Data Communications &	3	EE2000 or EE2301	Nil	3	3	3
	Networking						
EE3210	Signals and Systems	3	MA2001	Nil	3	3	N.A.
EE3313	Applied Queueing Systems	3	MA1201 or MA1301 or	MA2001	3	3	3
			(note f)				
MA2001	Multi-variable Calculus and	3	(MA1200 or MA1300) &	Nil	N.A.	N.A.	3
	Linear Algebra		(MA1201 or MA1301) or A				
			Pass in AL Pure Maths or				
			Applied Maths or				
			equivalent				
			Technical Cour	se Total (CUs):	12	12	12

Students are advised to complete the following degree and language requirements as early as possible alongside those technical courses as advised above, subject to credit limit and their offering schedule. Please refer to p.6 for corresponding requirements for Normative 4-year degree, ASI and ASII students.

- EL0200 English for Academic Purposes (6 credit units)#
- GE1401 University English (3 credit units)#
- GE2410 English for Engineering (3 credit units)
- GE1501 Chinese Civilization History and Philosophy (3 credit units)#
- CHIN1001 University Chinese I (3 credit units)#
- Gateway Education (Area Requirements)
- Free Electives (9 credit units)*

Maximum Total (CUs):	18	18	18	i

^{*} Applicable to Normative 4-year degree students only

[#] Not applicable to Advanced Standing II students

Year 3 (Semester B)

Code	Title	CU	Pre-requisite	Precursor	Course plan fo	r students of differen	t qualifications
					N	ormative 4-year/ASI/AS	SII
					MA1200/MA1	300 & MA1201/ MA130	1 Requirement
					(Math I and Math II in short)		
					<u>Normative</u>	<u>Normative</u>	<u>Normative</u>
					Completed both	Still require Math II	Still require both
					Math I & II	ASI & ASII	Math I & II
					ASI & ASII	Math I Exempted	ASI & ASII
					Math I & II Exempted		No Exemption
							granted on Math I & II
EE3008	Principles of Communications	3	MA2001 & EE3210 [∆]	Nil	3	3	3
EE3315	Internet Technology	3	EE3009	Nil	3	3	3
EE3316	Information Product Design	3	EE2004 & EE2311	Nil	3	3	3
CS3402	Database Systems	3	CS2311	Nil	3	3	3
EE3210	Signals and Systems	3	MA2001	Nil	N.A.	N.A	3
MA3001	Differential Equations	3	MA2001	Nil	N.A.	N.A.	3
			12	12	18		

Students are advised to complete the following degree and language requirements as early as possible alongside those technical courses as advised above, subject to credit limit and their offering schedule. Please refer to p.6 for corresponding requirements for Normative 4-year degree, ASI and ASII students.

- EL0200 English for Academic Purposes (6 credit units)#
- GE1401 University English (3 credit units)#
- GE2410 English for Engineering (3 credit units)
- GE1501 Chinese Civilization History and Philosophy (3 credit units)#
- CHIN1001 University Chinese I (3 credit units)#
- Gateway Education (Area Requirements)
- Free Electives (9 credit units)*

Maximum Total (CUs): 18	18	18

- Δ Co-requisite: to be taken before or together with the course
- * Applicable to Normative 4-year degree students only
- # Not applicable to Advanced Standing II students

Year 3 (Summer)

Code	Title	CU	Pre-requisite	Precursor	Course plan fo	r students of differer	nt qualifications
					N	Normative 4-year/ASI/A	SII
					MA1200/MA1300 & MA1201/ MA1301 Requirement		01 Requirement
					(Math I and Math II in short)		ort)
					<u>Normative</u>	<u>Normative</u>	<u>Normative</u>
					Completed both	Still require Math II	Still require both
					Math I & II	ASI & ASII	Math I & II
					ASI & ASII	Math I Exempted	ASI & ASII
					Math I & II Exempted		No Exemption
							granted on Math I & II
EE4095	Engineering Training II for	0	Note 1		0		
	Information Engineering						
	Technical Course Total (CUs):					0	

Students are advised to complete the following degree and language requirements as early as possible alongside those technical courses as advised above, subject to credit limit and their offering schedule. Please refer to p.6 for corresponding requirements for Normative 4-year degree, ASI and ASII students.

- EL0200 English for Academic Purposes (6 credit units)#
- GE1401 University English (3 credit units)#
- GE2410 English for Engineering (3 credit units)
- GE1501 Chinese Civilization History and Philosophy (3 credit units)#
- CHIN1001 University Chinese I (3 credit units)#
- Gateway Education (Area Requirements)
- Free Electives (9 credit units)*

Maximum Total (CUs):	7

Note 1:

- EE4095 (Part A Industrial Attachment Scheme): EE4093; EE2311 and Pre-attachment Training
- EE4095 (Part B In-house Training): EE4093 and EE2311
- EE4095 (Part C Summer Placement Scheme): EE4093 and EE2311
- * Applicable to Normative 4-year degree students only
- # Not applicable to Advanced Standing II students

Year 4 (Semester A)

Code	Title	CU	Pre-requisite	Precursor	Course plan for students of different qualifications Normative 4-year/ASI/ASII		
						300 & MA1201/ MA130	
						Nath I and Math II in sho	, <i>'</i>
					<u>Normative</u>	<u>Normative</u>	<u>Normative</u>
					Completed both	Still require Math II	Still require both
					Math I & II	ASI & ASII	Math I & II
					ASI & ASII Math I & II Exempted	Math I Exempted	ASI & ASII No Exemption
					Matir i & ii Exempted		granted on Math I & II
EE3013	Engineers in Society	0	At least 60 CUs (Normative 4-	Nil		0	granted on Matri A n
LLJUIJ	Linginieers in Society	U	year degree) of the Major	INII		U	
			Requirement , College				
			Requirement and College-				
			specified GE Courses / 43 CUs ^Δ				
			(ASI) / 40 CUs $^{\Delta}$ (ASII) of the				
			curriculum have been				
			completed				
EE4221	Cloud Computing Systems	3	EE2004	Nil		3	
EE4382	Project	4.5	At least 54 CUs (Normative 4-	Nil		4.5	
			year degree) of the Major				
			Requirement , College				
			Requirement and College-				
			specified GE Courses / 39 CUs [△]				
			(ASI) / 36 CUs ^A (ASII) of the				
			major requirement have been				
			completed				
CS3103	Operating Systems	3	Nil	EE2004 &		3	
C33103	Operating Systems	3	INII	CS2311		3	
2 Technic	2 Technical Elective Courses 6 Note b Note b				6		
	Technical Course Total (CUs):					16.5	

Δ Credits of exempted courses are counted regardless of the completion time of replacement courses. Students completed full requirement in College-specified courses (MA1200/MA1201/MA1300/MA1301) can have one course counted towards the credit unit requirement specified above.

Year 4 (Semester B)

Code	Title	CU	Pre-requisite	Precursor	Course plan for students of different qualifications		
					N	Iormative 4-year/ASI/AS	SII
					MA1200/MA1300 & MA1201/ MA1301 Requirement		1 Requirement
					(Math I and Math II in short)		ort)
					<u>Normative</u>	<u>Normative</u>	<u>Normative</u>
					Completed both	Still require Math II	Still require both
					Math I & II	ASI & ASII	Math I & II
					ASI & ASII	Math I Exempted	ASI & ASII
					Math I & II Exempted		No Exemption
							granted on Math I & II
EE4382	Project	4.5	At least 54 CUs (Normative 4-	Nil		4.5	
			year degree) of the Major				
			Requirement , College				
			Requirement and College-				
			specified GE Courses / 39 CUs				
			(ASI) / 36 CUs (ASII) of the				
			Major Requirement have				
			been completed				
2 Tachai	cal Floative Courses	6	•	Note h		6	
2 Technical Elective Courses 6 Note b		Note b		D			
Technical Course Total (CUs):				10.5			
recimical course rotal (cos).					10.5		

Students are advised to complete the following degree and language requirements as early as possible alongside those technical courses as advised above, subject to credit limit and their offering schedule. Please refer to p.6 for corresponding requirements for Normative 4-year degree, ASI and ASII students.

- EL0200 English for Academic Purposes (6 credit units)#
- GE1401 University English (3 credit units)#
- GE2410 English for Engineering (3 credit units)
- GE1501 Chinese Civilization History and Philosophy (3 credit units)#
- CHIN1001 University Chinese I (3 credit units)#
- Gateway Education (Area Requirements)
- Free Electives (9 credit units)*

Maximum Total (CUs):	18

Δ Credits of exempted courses are counted regardless of the completion time of replacement courses. Students completed full requirement in College-specified courses (MA1200/MA1201/MA1300/MA1301) can have one course counted towards the credit unit requirement specified above.

- * Applicable to Normative 4-year degree students only
- # Not applicable to Advanced Standing II students