BEng Information Engineering
Recommended Study Plan for Students Entering Major in 2017/18

Minimum Graduation Requirements

	Normative 4-year degree Credit Units (CUs)	Advanced Standing I (ASI) Credit Units (CUs)	Advanced Standing II (ASII) Credit Units (CUs)
Major Requirements			
Core courses	69[a]	60[a]	45 - 57[a]
Elective courses	15[b]	15[b]	15[b]
GE Requirements			
(GE1401 and GE2410)	6[c]	6[c]	3 (GE2410)
Chinese Civilization	3	3	Not required
Gateway Education (Area Requirements)	12[e]	6	3
College-specified Courses	9[f]	6[^]	6[^]
College Requirements	6[g]	0	0
Minimum number of credits required for the award:	**120[d h]**	**96[d h]**	**72[h]**

Note:
a. i/ Including non-credit-bearing courses EE4093 Engineering Training I for Information Engineering, EE4095 Engineering Training II for Information Engineering.

   ii/ EE1001, EE1002 and EE1003 are not required for Advanced Standing I & II students.

   iii/ CS2311 is not required for Advanced Standing II students.

   iv/ Requirements on EE2000, EE2004, EE2301 and EE2331 will be considered case by case based on ASII students' backgrounds in the subjects.

b. Students are required to take at least FIVE electives (15 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 EL0200A English for Academic Purposes 1 & EL0200B English for Academic Purposes 2 (EAP) of 6 credit units before progressing to GE1401 University English and GE2410 English for Engineering. Early exit arrangement is available that students achieving a grade B or above in their overall course results for EL0200A will be permitted to exit at this point and progress to the GE English courses.

   The credits earned from the EAP course(s) 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.

Advanced Standing I students are required to take their 6CUs from two different areas above.

f. College-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. Students having completed EE4081 Professional Internship Program (6CUs) will take one less elective (3CUs) and are not required to take EE3012 Engineers in Society (3CUs)

Year 2 (Semester A)

Code	Title	CU	Pre-requisite	Precursor	Course plan for students of different qualifications		
					Normative 4-year/AS I/ASII MA1200/MA1300 & MA1201/ MA1301 Requirement (Math I and Math II in short)		
					Normative Completed both Math I & II ASI & ASII Math I & II Exempted	Normative Still require Math II ASI & ASII Math I Exempted	Normative Still require both Math I & II ASI & ASII No Exemption granted on Math I & II
EE2000@	Logic Circuit Design	3	Nil	Nil	3	3	3
EE2108	Engineering Analysis	3	(MA1200 or MA1300) *	(MA1201 or MA1301)*	3	3	0 or 3
CS2311#	Computer Programming	3	(CS1102 or CS1302) *	Nil	0 or 3	0 or 3	0 or 3
MA2001	Multi-variable Calculus and Linear Algebra	3	(MA1200 or MA1300) & (MA1201 or MA1301)	Nil	3	N.A.	N.A.
MA1200	Calculus and Basic Linear Algebra I	3 (note f)	Nil	Nil	N.A.	N.A.	3
MA1201	Calculus and Basic Linear Algebra II	3 (note f)	MA1200	Nil	N.A.	3	N.A.
				Technical Course Total (CUs):	12 (normative) 9 or 12 (ASI/II)	12 (normative) 9 or 12 (ASI/II)	9 (normative) 9 or 12 (ASI/II)

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.6-8 for corresponding requirements for Normative 4-year degree, ASI and ASII students.

- EL0200A & EL0200B English for Academic Purposes 1 & 2 (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)

| | | | | Maximum Total (CUs): | 18 | 18 | 18 |

* Applicable to Normative 4-year degree students only

Not applicable to Advanced Standing II students

@ Requirements on EE2000, EE2004, EE2301 and EE2331 will be considered case by case based on ASII students' backgrounds in the subjects.

Year 2 (Semester B)

Code	Title	CU	Pre-requisite	Precursor	Course plan for students of different qualifications		
					Normative 4-year/AS I/ASII MA1200/MA1300 & MA1201/ MA1301 Requirement (Math I and Math II in short)		
					Normative Completed both Math I & II ASI & ASII Math I & II Exempted	Normative Still require Math II ASI & ASII Math I Exempted	Normative Still require both Math I & II ASI & ASII No Exemption granted on Math I & II
EE1003*	Introduction to Electronic Design & Workshop	3	Nil	Nil	0 or 3	0 or 3	0 or 3
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
EE2331@	Data Structures and Algorithms	3	CS2311	Nil	3	3	3
MA3160	Probability and Stochastic Processes	3	MA2001	Nil	3	N.A.	N.A.
MA2001	Multi-variable Calculus and Linear Algebra	3	(MA1200 or MA1300) & (MA1201 or MA1301)	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):					**15 (Normative) 12 (ASI /II)**	**15 (Normative) 12 (ASI /II)**	**18 (Normative) 15 (ASI /II)**

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.6-8 for corresponding requirements for Normative 4-year degree, ASI and ASII students.

- EL0200A & EL0200B English for Academic Purposes 1 & 2 (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)

Maximum Total (CUs):	**18**	**18**	**18**

* Applicable to Normative 4-year degree students only

Not applicable to Advanced Standing II students

@ Requirements on EE2000, EE2004, EE2301 and EE2331 will be considered case by case based on ASII students' backgrounds in the subjects.

Year 2 (Summer)

Code	Title	CU	Pre-requisite	Precursor	Course plan for students of different qualifications		
					Normative 4-year/ASI/ASII MA1200/MA1300 & MA1201/ MA1301 Requirement (Math I and Math II in short)		
					Normative Completed both Math I & II <u>ASI & ASII</u> Math I & II Exempted	Normative Still require Math II <u>ASI & ASII</u> Math I Exempted	Normative Still require both Math I & II <u>ASI & ASII</u> No Exemption granted on Math I & II
EE4093	Engineering Training I for Information Engineering	0	CS2311	Nil	0	0	0
MA3160	Probability and Stochastic Processes	3	MA2001	Nil	N.A.	3	N.A.
Technical Course Total (CUs):					**0**	**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.6-8 for corresponding requirements for Normative 4-year degree, ASI and ASII students.

- EL0200A & EL0200B English for Academic Purposes 1 & 2 (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)

Maximum Total (CUs):	**7**	**7**	**7**

\# Not applicable to Advanced Standing II students

Year 3 (Semester A)

Code	Title	CU	Pre-requisite	Precursor	Course plan for students of different qualifications		
					Normative 4-year/ASI/ASII MA1200/MA1300 & MA1201/ MA1301 Requirement (Math I and Math II in short)		
					Normative Completed both Math I & II ASI & ASII Math I & II Exempted	Normative Still require Math II ASI & ASII Math I Exempted	Normative Still require both Math I & II ASI & ASII No Exemption granted on Math I & II
EE3009	Data Communications & Networking	3	EE2000 or EE2301	MA3160	3	3	3
EE3206	Java Programming and Applications	3	EE2331	Nil	3	3	3
EE3210	Signals and Systems	3	MA2001	Nil	3	3	N.A.
CS3103	Operating Systems	3	Nil	EE2004 & CS2311	3	3	3
MA2001	Multi-variable Calculus and Linear Algebra	3	(MA1200 or MA1300) & (MA1201 or MA1301) or equivalent	Nil	N.A.	N.A.	3
				Technical Course 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.6-8 for corresponding requirements for Normative 4-year degree, ASI and ASII students.

- EL0200A & EL0200B English for Academic Purposes 1 & 2 (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)

Maximum Total (CUs): **18**	**18**	**18**

\# Not applicable to Advanced Standing II students

Year 3 (Semester B)

Code	Title	CU	Pre-requisite	Precursor	Course plan for students of different qualifications		
					Normative 4-year/ASI/ASII MA1200/MA1300 & MA1201/ MA1301 Requirement (Math I and Math II in short)		
					Normative Completed both Math I & II ASI & ASII Math I & II Exempted	Normative Still require Math II ASI & ASII Math I Exempted	Normative Still require both Math I & II ASI & ASII No Exemption granted on Math I & II
EE3008	Principles of Communications	3	MA2001 & EE3210$^\Delta$	Nil	3	3	N.A.
EE3210	Signals and Systems	3	MA2001	Nil	N.A.	N.A	3
EE3313	Applied Queueing Systems	3	MA1201 or MA1301 or (note f) or MA3160$^\Delta$	MA2001	3	3	3
EE3315	Internet Technology	3	EE3009	Nil	3	3	3
EE3316	Information Product Design	3	EE2004 & EE3206	Nil	3	3	3
CS3402	Database Systems	3	CS2311	Nil	3	3	3
MA160	Probability and Stochastic Processes	3	MA2001	Nil	N.A.	N.A.	3
				Technical Course Total (CUs):	**15**	**15**	**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.6-8 for corresponding requirements for Normative 4-year degree, ASI and ASII students.

- EL0200A & EL0200B English for Academic Purposes 1 & 2 (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)

Maximum Total (CUs): **18**	**18**	**18**

Δ Co-requisite: to be taken before or together with the course
Not applicable to Advanced Standing II students

Year 3 (Summer)

Code	Title	CU	Pre-requisite	Precursor	Course plan for students of different qualifications		
					Normative 4-year/ASI/ASII MA1200/MA1300 & MA1201/ MA1301 Requirement (Math I and Math II in short)		
					Normative Completed both Math I & II ASI & ASII Math I & II Exempted	Normative Still require Math II ASI & ASII Math I Exempted	Normative Still require both Math I & II ASI & ASII No Exemption granted on Math I & II
EE4095	Engineering Training II for Information Engineering	0	Note 1		0		
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.6-8 for corresponding requirements for Normative 4-year degree, ASI and ASII students.

- EL0200A & EL0200B English for Academic Purposes 1 & 2 (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)

Maximum Total (CUs):	**7**

Note 1:

- EE4095 (Part A Industrial Attachment Scheme): EE4093; EE3206 and Pre-attachment Training
- EE4095 (Part B In-house Training): EE4093 and EE3206
- EE4095 (Part C Summer Placement Scheme): EE4093 and EE3206

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 MA1200/MA1300 & MA1201/ MA1301 Requirement (Math I and Math II in short)		
					Normative Completed both Math I & II ASI & ASII Math I & II Exempted	Normative Still require Math II ASI & ASII Math I Exempted	Normative Still require both Math I & II ASI & ASII No Exemption granted on Math I & II
EE3008	Principles of Communications	3	MA2001 & EE3210*	Nil	N.A.	N.A.	3
EE3012**h**	Engineers in Society	3	At least 69 CUs (Normative 4-year degree) of the Major Requirement, College Requirement and College-specified GE courses/ 43 CUs **Δ** (ASI) / 40 CUs **Δ** (ASII) of the major requirement have been completed	Nil	3	3	3
EE4381	Project	3	At least 63 CUs (Normative 4-year degree) of the Major Requirement, College Requirement and College-specified GE courses / 39 CUs **Δ** (ASI) / 36 CUs **Δ** (ASII) of the major requirement have been completed	Nil	3	3	3
3 Technical Elective Courses		9	Note b	Note b	9	9	9
Technical Course Total (CUs):					**15**	**15**	**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.6-8 for corresponding requirements for Normative 4-year degree, ASI and ASII students. • EL0200A & EL0200B English for Academic Purposes 1 & 2 (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)							
Maximum Total (CUs):					**18**	**18**	**18**

h   Students having completed EE4081 Professional Internship Program (6CUs) will take one less elective (3CUs) and are not required to take EE3012 Engineers in Society (3CUs)

*   Co-requisite: to be taken before or together with the course

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

Not applicable to Advanced Standing II students

Year 4 (Semester B)

Code	Title	CU	Pre-requisite	Precursor	Course plan for students of different qualifications		
					Normative 4-year/ASI/ASII MA1200/MA1300 & MA1201/ MA1301 Requirement (Math I and Math II in short)		
					Normative Completed both Math I & II ASI & ASII Math I & II Exempted	Normative Still require Math II ASI & ASII Math I Exempted	Normative Still require both Math I & II ASI & ASII No Exemption granted on Math I & II
EE4381	Project	3	At least 63 CUs (Normative 4-year degree) of the Major Requirement, College Requirement and College-specified GE courses /39 CUs Δ (ASI) / 36 CUs Δ (ASII) of the Major Requirement have been completed	Nil	3		
2 Technical Elective Courses		6	Note b	Note b	6		
Technical Course Total (CUs):					**9**		

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.6-8 for corresponding requirements for Normative 4-year degree, ASI and ASII students.

- EL0200A & EL0200B English for Academic Purposes 1 & 2 (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)

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 GE courses (MA1200/MA1201/MA1300/MA1301) can have one course counted towards the credit unit requirement specified above.

\# Not applicable to Advanced Standing II students