

**Course Assessment Table**  
**BEng in Computer and Data Engineering**  
**2016/17 Entering Major**

Updated on 31 Aug 2019

The offering schedule specified below is under normal circumstances, and might be subject to change due to different timetabling and teaching assignment constraints in different years. Students may take it as reference and please pay attention to the master class schedule announced by the Academic Regulations and Records Office (ARRO) prior to each semester for course registration and add/drop arrangement. Also, courses will be arranged in day or evening sessions catering for the different timetable patterns of students.

**A/ Core Courses**

Pre-cursor	Pre-requisite	Offered in Sem	Course Code & Title	CU	Contact Hours				C %	X %	Exam Dur (hrs)	W	Remarks
					Lec	Tut	Lab	Total					
EE2000 and CS2311	CS1102 or CS1302, Note a (MA1200 or MA1300) & (MA1201 or MA1301) or Note b	A & B	EE1003# Foundations of Information Technology	3	26	13	0	39	40	60	2	1	Note 1
		A & B	EE2000 Logic Circuit Design	3	39	13	15	67	40	60	2	1	Note 2
		A & B	EE2301 Basic Electronic Circuits	3	39	13	15	67	50	50	2	1	Note 2
		A & B	CS2311Δ Computer Programming	3	26	0	26	52	40	60	2	1	Note 3
		A & B	MA2001 Multi-variable Calculus & Linear Algebra	3	39	13	0	52	30	70	2	1	Note 3
		A & B	EE2004 Microcomputer Systems	3	39	8/13	15	62/67	40	60	2	1	Note 4
		B	EE2203 Modelling Techniques	3	26	26	15	67	40	60	2	1	Note 1
MA1200, Note c MA1201 or MA1301 CS2311		B	EE3001 Foundations of Data Engineering	3	26	13	0	39	40	60	2	1	Note 1
		A & B	EE2311 Object-oriented Programming and Design	3	26	26	0	52	50	50	2	1	Note 1
EE3001	CS2311	A & B	EE2331 Data Structures and Algorithms	3	39	26	0	65	40	60	2	1	Note 1
	EE2000 or EE2301	A & B	EE3009 Data Communications and Networking	3	39	13	12	64	40	60	2	1	Note 2
	CS2311	A	EE3209 Data Management Techniques	3	26	26	0	52	40	60	2	1	Note 1
	MA2001	A & B	EE3210 Signals and Systems	3	26	13	0	39	40	60	2	1	Note 1
	EE2004	A	EE3220 Embedded System Design	3	39	13	15	67	40	60	2	1	Note 2
EE2301	EE3009	B	EE3315 Internet Technology	3	26	9	12	47	30	70	2	1	Note 2
	EE2004 & CS2311	A & B	EE3274 Design Project	3	9	0	69	78	100	0	-	1	Note 5
EE2004 and CS2311	CS2311	A & B	CS3103 Operating Systems	3	26	13	0	39	40	60	2	1	Note 3
		A	CS3402 Database Systems	3	26	13	0	39	40	60	2	1	Note 3
EE4290	EE2000 Note e Note f	A & B	EE3012 Engineers in Society	3	18	8	0	26	50	50	2	1	Note 1
		S	EE4290 Engineering Training I for Computer and Data Engineering	0	0	0	70	70	100	0	-	1	Note 6
		S	EE4291 Engineering Training II for Computer and Data Engineering	0	0	0	*		100	0	-	1	Note 6
		A & B	EE4281 Project	6	Other activities: 144		208	352	100	0	-	1	**

**Key :** CU = Credit Unit    Lec = Lecture    Tut = Tutorial    Lab = Laboratory    C = Coursework  
X = Examination    Exam Dur = Exam Duration    W = GGPA Weighting (per CU)    S/A/B = Summer Semester/Semester A/Semester B

### **Remarks for Pre-requisite and Co-requisite:**

- Note a Applicable to Normative 4-year degree students only
- Note b Advanced Standing I and II (ASI and II) students without relevant mathematical background are required to take 6 credit units of College-specified courses namely MA1200 Calculus & Basic Linear Algebra I / MA1300 Enhanced Calculus & Linear Algebra I AND MA1201 Calculus & Basic Linear Algebra II / MA1301 Enhanced Calculus & Linear Algebra II, unless they pass the placement test offered by Mathematics Department. Students granted exemption on either one or both of the course(s) should take any course(s) not within the Major Requirement (including core courses and electives) to make up for the minimum curriculum requirement.
- Note c Co-requisite: to be taken before or together with the course (A pass is not required.)
- Note d At least 69 CUs (Normative 4-year degree) of the Major Requirement, College Requirement and College-specified GE courses have been completed /43 CUs (ASI) /40 CUs (ASII) of the Major Requirement have been completed. Credits of exempted courses for ASI & II are counted regardless of the completion time of replacement courses. Corresponding reduction in credit requirement applies to ASII students granted with waiver arrangement on courses upon admission. Students completed full requirement in College-specified courses (MA1200/MA1201/MA1300/MA1301) can have one course counted towards the credit unit requirement specified above.
- Note e EE4291Part A Industrial Attachment Scheme: EE4290, EE2004 and Pre-attachment Scheme.  
EE4291Part B In-house Training and Part C Summer Placement Scheme: EE4290 and EE2004.
- Note f At least 63 CUs (Normative 4-year degree) of the Major Requirement, College Requirement and College specified GE courses have been completed /39 CUs (ASI) /36 CUs (ASII) of the Major Requirement have been completed (Major Requirement excludes Gateway Education and Language requirements.). Credits of exempted courses for ASI & II are counted regardless of the completion time of replacement courses. Corresponding reduction in credit requirement applies to ASII students granted with waiver arrangement on courses upon admission. Students completed full requirement in College-specified courses (MA1200/MA1201/MA1300/MA1301) can have one course counted towards the credit unit requirement specified above.

### **Remarks for course assessment:**

- Note 1 To pass the course, students are required to achieve at least 30% in coursework and 30% in the examination.
- Note 2 To pass the course, students are required to achieve at least 30% in coursework and 30% in the examination. Also, 75% laboratory attendance rate must be obtained.
- Note 3 For a student to pass the course, at least 30% of the maximum mark for the examination must be obtained.
- Note 4 To pass the course, students are required to achieve at least 30% in coursework and 30% in the examination. When the laboratory experiments are involved in teaching and learning activities (TLA), 75% laboratory attendance rate must be obtained. When the mini-project is involved in TLA, 75% tutorial attendance rate must be obtained.
- Note 5 To pass the course, students are required to have at least 40% of the coursework, and a laboratory attendance of at least 75% recorded.
- Note 6 Pass/Fail Basis. To pass the course, students are required to have a laboratory attendance of 100% recorded.

### **Other remarks**

- \* Part A Industrial Attachment Scheme: 9- 13 weeks; Part B In-house Training: 5 weeks (150 contact hours); Part C Summer Placement Scheme: 9 to 13 weeks.
- \*\* Students undertaking Co-operative Education Scheme (CES) Placement Project should register on EE4281 Project to fulfil the Final Year Project requirement.
- # Applicable to Normative 4-year degree students only; replaced by GE1354 Introduction to Electronic Design with effect from Sem A 2018/19.
- Δ Waived for Advanced Standing II students.

**B/ Electives (15 CUs)**

Students are required to take at least FIVE electives with at least TWO electives from each group.

**Group A**

Pre-cursor	Pre-requisite	Offered in Sem	Course Code & Title	CU	Contact Hours				C %	X %	Exam Dur (hrs)	W	Equivalent Course	Remarks
					Lec	Tut	Lab	Total						
	EE3009	B	EE4014 Business Data Communication Networks	3	26	13	0	39	50	50	2	1		Note 2
	MA2001	B	EE4016 Engineering Applications of Artificial Intelligence	3	26	13	0	39	50	50	2	1		Note 1
	EE3009	A	EE4017 Internet Finance	3	26	13	0	39	40	60	2	1		Note 2
	EE2203	A	EE4146 Data Engineering and Learning Systems	3	25	5	9	39	40	60	2	1		Note 2
EE3009	MA2001 and EE3001	B	EE4212 Cryptography and Information Theory	3	26	13	0	39	30	70	2	1		Note 1
	MA2001	A	EE4215 Cybersecurity Technology	3	31	5	3	39	40	60	2	1		Note 1
CS3103	EE3206 and CS3402	B	EE4216 Modern Web Applications	3	26	13	0	39	60	40	2	1		Note 1
	EE3206 and EE3009	A	EE4221 Cloud Computing Systems	3	26	0	13	39	50	50	2	1		Note 2
EE3009	CS2311 and EE2004	A	EE4222 Digital Forensics	3	39	0	15	54	40	60	2	1		Note 2
	EE3009	B	EE4316 Mobile Data Networks	3	26	13	0	39	30	50	2	1		Note 1

**Group B**

Pre-cursor	Pre-requisite	Offered in Sem	Course Code & Title	CU	Contact Hours				C %	X %	Exam Dur (hrs)	W	Equivalent Course	Remarks
					Lec	Tut	Lab	Total						
	CS2311	B	CS3391 Advanced Programming	3	39*			39	60	40	3	1		Note 3 Δ
		A	or CS4335 Design and Analysis of Algorithms		26	13	0	39	30	70	2	1		Note 3
EE2331	EE3210	B	EE4015 Digital Signal Processing	3	39	0	0	39	40	60	2	1		Note 1
	EE2000 and EE2004	B	EE4204 Digital System Design with VHDL	3	26	8	12	46	40	60	2	1		Note 2
EE2331	MA2001 & CS2311	A	EE4208 Computer Graphics for Engineers	3	26	13	0	39	40	60	2	1		Note 1
	EE3210	A	EE4209 Digital Audio Technology	3	26	13	0	39	30	70	2	1		Note 1
	MA2001 & EE3210	A	EE4211 Computer Vision	3	26	13	0	39	40	60	2	1		Note 1
	CS2311	A	EE4213 Human-Computer Interaction	3	26	13	0	39	40	60	2	1		Note 1
	EE2004	A	EE4218 Computer Architecture	3	26	13	0	39	30	70	2	1		Note 1
	EE3206	A	EE4304 iOS Mobile App Development and Networking	3	20	0	19#	39	70	30	1.5	1		Note 2

C/ Optional One-year Internship

Pre-cursor	Pre-requisite	Offered in Sem	Course Code & Title	CU	Contact Hours				C %	X %	Exam Dur (hrs)	W	Equivalent Course	Remarks
					Lec	Tut	Lab	Total						
		A/B/S	EE4081 Professional Internship Program	6	8-12 months				100	0	-	1		Φ

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                   X = Examination            Exam Dur = Exam Duration            W = GGPA Weighting (per CU)            S/A/B = Summer Semester/Semester A/Semester B

Note 1: To pass the course, students are required to achieve at least 30% in coursework and 30% in the examination.

Note 2: To pass the course, students are required to achieve at least 30% in coursework and 30% in the examination. Also, 75% laboratory attendance rate must be obtained.

^            Exclusive course

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

**C/ Gateway Education (GE)**

Pre-requisite	Offered in Sem	Course Code & Title	CU			Contact Hours		C %	X %	Exam Dur (hrs)	W	Remarks
			Normative 4-year degree	AS I	ASII	Lec/Tut/Lab	Ttl					
For GE1401/ GE2410  Level 4 in HKDSE English Language OR D in HKALE AS Use of English OR EL0200B OR Grade B or above in EL0200A		<b><u>GE English</u></b>										*
	B	- GE1401 University English	3	3	**	39	39	100	0	-	1	
	A	- GE2410 English for Engineering ( <i>Discipline-Specific English</i> )	3	3	3	39	39	100	0	-	1	
	A/B/S	<b><u>Chinese Civilization</u></b> - GE1501 Chinese Civilisation – History and Philosophy	3	3	**	26/26	52	100	0	-	1	
	A/B/S	<b><u>Gateway Education (Area Requirements)</u></b> - Area 1: Arts and Humanities - Area 2: Study of Societies, Social and Business Organisations - Area 3: Science and Technology	12#	6	3	Please refer to the course information for details.						1
A/B/S	<b><u>College -specified Courses</u></b> - MA1200 Calculus and Basic Linear Algebra I / MA1300 Enhanced Calculus and Linear Algebra I (3CUs) - MA1201 Calculus and Basic Linear Algebra II / MA1301 Enhanced Calculus and Linear Algebra II (3CUs) - CS1102 Introduction to Computer Studies/ CS1302 Introduction to Computer Programming (3CUs)	9	6^	6^								

English Language Requirement

\* 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 and 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](http://www.cityu.edu.hk/elc/courses_exemption.html)).

\*\* Not necessary for Advanced Standing II Students

# A minimum of 3 credit units must be obtained from each of the three areas

^ 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.

## D/ Language Requirements

Pre-cursor	Pre-requisite	Offered in Sem	Course Code & Title	CU	Contact Hours		C %	X %	Exam Dur	W	Remarks
					Lec/Tut/Lab	Ttl					
	Level 3 in HKDSE English Language OR Grade E in HKAL AS Use of English or other acceptable entrance qualification in English EL0200A	A/B/S	<b><u>English Language Requirement</u></b> - EL0200A English for Academic Purposes 1 **	3	39	39	35	65	-	0	*
		B/S	- EL0200B English for Academic Purposes 2 **	3	39	39	60	40	-	0	*
	Level 3 in HKDSE Chinese Language OR Grade E in HKALE AS Chinese Language and Culture	A/B/S	<b><u>Chinese Language Requirement</u></b> CHIN1001 University Chinese I **	3	39	39	100	0	-	0	@
				-							

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### English Language Requirement

- \* 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 and 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](http://www.cityu.edu.hk/elc/courses_exemption.html)).

For failure details, please visit [http://www.cityu.edu.hk/elc/courses\\_failure.html](http://www.cityu.edu.hk/elc/courses_failure.html)

### Chinese Language Requirement

- @ Normative 4-year degree and Advanced Standing I 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.

- \*\* Not necessary for Advanced Standing II students