Major Programme Requirement

Students are required to complete a minimum of 75 units of courses as follows:

		Units
1.	Faculty Package:	9

ENGG1100/ESTR1000, ENGG1110/ESTR1002, ENGG2601, 2602

2.	Foundation Science Courses:	9

(a) 2 courses from the following, in which at least 3 units must be a Physics course:
Chemistry Courses: CHEM1380
Life Science Courses: LSCI1001, 1003
Physics Courses[a]: ENGG1310/ESTR1003, PHYS1003, 1110
Other Courses: CSCI1120/ESTR1100, CSCI1130/ESTR1102

(b) IERG2060/ESTR2304

3.	Foundation Mathematics Courses:	12

ENGG1410/ESTR1004, ENGG2420/ESTR2000, ENGG2470/ ESTR2012, MATH1510[b]

4.	Required Courses:	
(a)	CSCI1140, CSCI2100/ESTR2102, ENGG2310/ESTR2300, IERG2051/ESTR2302, IERG3060, IERG3080/ESTR3308, IERG3310/ESTR3310, IERG3800, 3810, 3820	22
(b)	Research Component Courses[c]: IERG4998, 4999	6

5.	Elective Courses:	17

Out of the 17 Elective Course units, at least 12 units should be from the following courses:
CSCI3150/ESTR3102, ENGG1820, IERG3010/ESTR3300, IERG3050, IERG3280/ESTR3302, IERG3300/ESTR3304, IERG3320/ESTR3306, IERG3830, 4004, 4030, IERG4080/ESTR4312, IERG4090/ESTR4302, IERG4100/ESTR4304, IERG4110/ESTR4314, IERG4130/ESTR4306, IERG4150/ESTR4322, IERG4160, IERG4180/ESTR4308, IERG4190, 4210, 4220, 4230, IERG4300/ESTR4300[*ENGG4030], IERG4330/ESTR4316, IERG4340, 4350, 4831, 4841, IERG5020[^IERG4020/ESTR4318], IERG5040/ENGG5392, IERG5090, IERG5100/ENGG5303, IERG5130, 5140, IERG5154/ENGG5301, IERG5200, 5230, IERG5240/ENGG5383, IERG5270, 5280, 5290, IERG5300/ENGG5302, IERG5310, 5320, 5330, 5340, 5350, 5590

The remaining units, if any, can be fulfilled by any BMEG/CENG/CSCI/EEEN/ELEG/ENER/ENGG/ESTR/FTEC/ MAEG/SEEM course(s) at 3000 and above level.

Streams

Students may choose not to specialize in any stream or to specialize in one or more of the five streams and complete a minimum of 12 units of courses prescribed by the stream.

Big Data: Systems and Applications
CSCI3320, 4180, 4190, ELEG5491, IERG3320/ESTR3306, IERG4080/ESTR4312, IERG4160, 4230, IERG4300/ESTR4300 [*ENGG4030] (required), IERG4330/ESTR4316, IERG5130, 5350

Communications
IERG3010/ESTR3300, IERG3280/ESTR3302, IERG3300/ESTR3304, IERG4030, IERG4100/ESTR4304, IERG4110/ESTR4314, IERG4130/ESTR4306, IERG4230, 4340, IERG5020[^IERG4020/ESTR4318], IERG5040/ENGG5392, IERG5100/ENGG5303, IERG5200, 5230, 5280, 5330

Cyber Security
CSCI3150/ESTR3102, IERG4004, IERG4130/ESTR4306 (required), IERG4150/ESTR4322, IERG4210, 4220, 4350, IERG5240/ENGG5383, IERG5310, 5320, 5590

Internet Engineering
CSCI3150/ESTR3102 (required), IERG3050, IERG3280/ESTR3302, IERG3300/ESTR3304, IERG4080/ESTR4312, IERG4090/ESTR4302, IERG4130/ESTR4306, IERG4180/ESTR4308, IERG4190, 4210, 4831, 4841, 5090, 5270, 5280

Enrichment
CSCI3160/ESTR3104, IERG3010/ESTR3300, IERG3050, IERG3280/ESTR3302, IERG3300/ESTR3304, IERG4100/ESTR4304, IERG4190, IERG4300/ESTR4300[*ENGG4030], IERG5154/ENGG5301, IERG5200, 5270, 5290, IERG5300/ENGG5302

	Total:	75

In addition to fulfilling the above Major Programme Requirement, students may also challenge themselves by taking the following stream offered by the Faculty:

Engineering Leadership, Innovation, Technology and Entrepreneurship (ELITE) Stream [d]
Elective Courses:
15 units of courses [e]:
i)   12 units of ESTR courses of which at most 6 units of courses at 1000 or 2000 level and at least 6 units of courses at 3000 or 4000 level [f]
ii)   3 units of BMEG/CENG/CSCI/ELEG/ENGG/IERG/MAEG/SEEM courses at 5000 level [g]

Explanatory Notes:
1.   Students who have completed the courses ENGG1110/ESTR1002, ENGG2601 and 2602 (or equivalent courses as approved by the Sub-Committee on Education Technologies) will be eligible to apply for exemption of 1 unit of University Core IT Requirement.
       Students are required to apply for the exemption. When exemption from a particular course is recognized, students can only be exempted from the course but not the units. Please follow the application procedures as announced by the IT Foundation Course Office at https://engg1000.cse.cuhk.edu.hk.
2.   BMEG/CENG/CSCI/EEEN/ELEG/ENER/ENGG/ESTR/IERG/MAEG/SEEM

required and major elective courses at 2000 and above level as well as IERG2060/ESTR2304 will be included in the calculation of Major GPA for honours classification, excluding courses in Faculty Package, Foundation Science courses and Foundation Mathematics courses.

3. Students satisfying all the requirements of a stream (except the ELITE Stream, which will be officially recorded on the academic transcript) will be given a certifying letter upon request. For details, please refer to the Department for information.

[a] The compulsory Physics course shall be taken in accordance with students' academic backgrounds as follows:

  i) Students without HKDSE Physics or who have attained Level 2 or below in HKDSE Physics or Combined Science with Physics Component shall take PHYS1003 in advance.

  ii) Students who have attained Level 3 or above in HKDSE Physics or Combined Science with Physics component shall take either ENGG1310/ESTR1003 or PHYS1110.

  iii) Non-JUPAS students will be assigned to take either PHYS1003 or 1110 according to advice of the Engineering Physics Panel.

  iv) Mainland students with Gao Kao examination results will be assigned to take either ENGG1310/ESTR1003 or PHYS1110 according to advice of the Engineering Physics Panel.

[b] i) Non-JUPAS admittees and JUPAS admittees with HKDSE Mathematics Extended Modules I or II are required to attend a Mathematics Placement Test. Students who fail or are absent from the Placement Test will be required to take MATH1020 in the same term when they take MATH1510.

  ii) JUPAS admittees without HKDSE Mathematics Extended Modules I or II are required to take MATH1020 concurrently with MATH1510.

  iii) Students who fail MATH1510 in Term 1 will have to retake the course in Term 2. The pre-assigned course, ENGG1410, will also be dropped.

[c] Students who have declared to specialize in the ELITE Stream will be required to complete 6 units of ESTR4998 and 4999 to substitute for IERG4998 and 4999.

[d] Details of the entrance and coursework requirements, and declaration procedures for the ELITE Stream can be found at the ELITE website (www.erg.cuhk.edu.hk/elite). Non-ELITE Engineering students may be allowed to take ESTR courses. Students are required to seek approval from their respective Major Programmes for using ESTR courses taken to fulfill the Major Programme Requirement. Details are available at the ELITE website.

[e] Students can use up to 9 units of courses which have been taken to fulfill the requirements of items 1 to 5 above to fulfill the elective requirements of the ELITE Stream. Item 4(b) Research Component Courses will not be included in these 9 units. A full list of ESTR courses is available at the ELITE website.

[f] Students can use BMEG/CENG/CSCI/ELEG/ENGG/IERG/MAEG/SEEM courses at 5000 level to substitute for ESTR courses at 3000 or 4000 level, subject to the approval of the Stream Director and the Associate Dean (Education).

[g] The requirement of at least 3 units of Engineering courses at 5000 level is a requirement for the ELITE Stream only. It should not be interpreted as a requirement of the Major Programme.

[^] Course offered in 2016-17 and before.

[*] Course offered in 2017-18 and before.

Recommended Course Pattern	Units

First Year of Attendance	1st term Faculty Package: ENGG1100/1110/ESTR1000/1002 Major Required: CHEM1380/CSCI1120/1130/ ENGG1310/ESTR1003/1100/1102/LSCI1001/1003/ PHYS1003/1110, MATH1510 Major Elective(s):	3 6
	2nd term Faculty Package: ENGG1100/1110/ESTR1000/1002 Major Required: CHEM1380/CSCI1120/1130/ ENGG1310/ESTR1003/1100/1102/LSCI1001/1003/ PHYS1003/1110, ENGG1410/ESTR1004 Major Elective(s):	3 6
Second Year of Attendance	1st term Major Required: CSCI1140, ENGG2420/ESTR2000, IERG2060/ESTR2304 Major Elective(s):	7
	2nd term Faculty Package: ENGG2601, 2602 Major Required: CSCI2100/ESTR2102, ENGG2470/ ESTR2012, IERG2051/ESTR2302 Major Elective(s):	3 9
Third Year of Attendance	1st term Major Required: ENGG2310/ESTR2300, IERG3080/ ESTR3308, IERG3310/ESTR3310, IERG3800, 3820 Major Elective(s): 1 course	11 2-3
	2nd term Major Required: IERG3060, 3810 Major Elective(s): 3 courses	4 9
Fourth Year of Attendance	1st term Major Required: IERG4998 Major Elective(s): 1 course	3 3
	2nd term Major Required: IERG4999 Major Elective(s): 1 course	3 3
Total (including Faculty Package):		**75-76**

Major Programme Requirement (for Associate Degree or Higher Diploma holders admitted to senior-year places)

Students are required to complete a minimum of 52 units of courses as follows:

		Units
1.	Faculty Package: ENGG2601, 2602	3
2.	Foundation Mathematics Courses: ENGG1410/ESTR1004, ENGG2430/ESTR2002, ENGG2460/ ESTR2010	9
3.	Required Courses:	
(a)	CSCI1140, CSCI2100/ESTR2102, ENGG2310/ESTR2300,	22

	IERG2051/ESTR2302, IERG3060, IERG3080/ESTR3308, IERG3310/ESTR3310, IERG3800, 3810, 3820	
(b)	Research Component Courses[a]: IERG4998, 4999	6
4.	Elective Courses:	12

Out of the 12 Elective Course units, at least 9 units should be from the following courses:
CSCI3150/ESTR3102, ENGG1820, IERG3010/ESTR3300, IERG3050, IERG3280/ESTR3302, IERG3300/ESTR3304, IERG3320/ESTR3306, IERG3830, 4004, 4030, IERG4080/ESTR4312, IERG4090/ESTR4302, IERG4100/ESTR4304, IERG4110/ESTR4314, IERG4130/ESTR4306, IERG4150/ESTR4322, IERG4160, IERG4180/ESTR4308, IERG4190, 4210, 4220, 4230, IERG4300/ESTR4300[*ENGG4030], IERG4330/ESTR4316, IERG4340, 4350, 4831, 4841, IERG5020[^IERG4020/ESTR4318], IERG5040/ENGG5392, IERG5090, IERG5100/ENGG5303, IERG5130, 5140, IERG5154/ENGG5301, IERG5200, 5230, IERG5240/ENGG5383, IERG5270, 5280, 5290, IERG5300/ENGG5302, IERG5310, 5320, 5330, 5340, 5350, 5590

The remaining units, if any, can be fulfilled by any BMEG/CENG/CSCI/EEEN/ELEG/ENER/ENGG/ESTR/FTEC/ MAEG/SEEM course(s) at 3000 and above level.

Streams
Students may choose not to specialize in any stream or to specialize in one or more of the five streams and complete a minimum of 12 units of courses prescribed by the stream.

Big Data: Systems and Applications
CSCI3320, 4180, 4190, ELEG5491, IERG3320/ESTR3306, IERG4080/ESTR4312, IERG4160, 4230, IERG4300/ESTR4300 [*ENGG4030] (required), IERG4330/ESTR4316, IERG5130, 5350

Communications
IERG3010/ESTR3300, IERG3280/ESTR3302, IERG3300/ESTR3304, IERG4030, IERG4100/ESTR4304, IERG4110/ESTR4314, IERG4130/ESTR4306, IERG4230, 4340, IERG5020[^IERG4020/ESTR4318], IERG5040/ENGG5392, IERG5100/ENGG5303, IERG5200, 5230, 5280, 5330

Cyber Security
CSCI3150/ESTR3102, IERG4004, IERG4130/ESTR4306 (required), IERG4150/ESTR4322, IERG4210, 4220, 4350, IERG5240/ENGG5383, IERG5310, 5320, 5590

Internet Engineering
CSCI3150/ESTR3102 (required), IERG3050, IERG3280/ESTR3302, IERG3300/ESTR3304, IERG4080/ESTR4312, IERG4090/ESTR4302, IERG4130/ESTR4306, IERG4180/ESTR4308, IERG4190, 4210, 4831, 4841, 5090, 5270, 5280

Enrichment
CSCI3160/ESTR3104, IERG3010/ESTR3300, IERG3050, IERG3280/ ESTR3302, IERG3300/ESTR3304, IERG4100/ESTR4304, IERG4190,

IERG4300/ESTR4300[*ENGG4030], IERG5154/ENGG5301, IERG5200, 5270, 5290, IERG5300/ENGG5302

	Total:	**52**

In addition to fulfilling the above Major Programme Requirement, students may also challenge themselves by taking the following stream offered by the Faculty:

Engineering Leadership, Innovation, Technology and Entrepreneurship (ELITE) Stream[b]
Elective Courses:
15 units of courses[c]:
i)   12 units of ESTR courses of which at most 6 units of courses at 1000 or 2000 level and at least 6 units of courses at 3000 or 4000 level[d]
ii)   3 units of BMEG/CENG/CSCI/ELEG/ENGG/IERG/MAEG/SEEM courses at 5000 level[e]

Explanatory Notes:
1.   BMEG/CENG/CSCI/EEEN/ELEG/ENER/ENGG/ESTR/IERG/MAEG/SEEM required and major elective courses at 2000 and above level will be included in the calculation of Major GPA for honours classification, excluding courses in Faculty Package, Foundation Science courses and Foundation Mathematics courses.
2.   Students satisfying all the requirements of a stream (except the ELITE Stream, which will be officially recorded on the academic transcript) will be given a certifying letter upon request. For details, please refer to the Department for information.
[a]   Students who have declared to specialize in the ELITE Stream will be required to complete 6 units of ESTR4998 and 4999 to substitute for IERG4998 and 4999.
[b]   Details of the entrance and coursework requirements, and declaration procedures for the ELITE Stream can be found at the ELITE website (www.erg.cuhk.edu.hk/elite). Non-ELITE Engineering students may be allowed to take ESTR courses. Students are required to seek approval from their respective Major Programmes for using ESTR courses taken to fulfill the Major Programme Requirement. Details are available at the ELITE website.
[c]   Students can use up to 9 units of courses which have been taken to fulfill the requirements of items 1 to 4 above to fulfill the elective requirements of the ELITE Stream. Item 3(b) Research Component Courses will not be included in these 9 units. A full list of ESTR courses is available at the ELITE website.
[d]   Students can use BMEG/CENG/CSCI/ELEG/ENGG/IERG/MAEG/SEEM courses at 5000 level to substitute for ESTR courses at 3000 or 4000 level, subject to the approval of the Stream Director and the Associate Dean (Education).
[e]   The requirement of at least 3 units of Engineering courses at 5000 level is a requirement for the ELITE Stream only. It should not be interpreted as a requirement of the Major Programme.
[^]   Course offered in 2016-17 and before.
[*]   Course offered in 2017-18 and before.

	Recommended Course Pattern	Units
First Year of Attendance	1st term Faculty Package: Major Required: CSCI1140, ENGG2460/ESTR2010, IERG3310/ESTR3310 Major Elective(s):	7

	2nd term	
	Faculty Package: ENGG2601, 2602	3
	Major Required: CSCI2100/ESTR2102, ENGG1410/ ESTR1004, ENGG2430/ESTR2002, IERG2051/ESTR2302 Major Elective(s):	12
Second Year of Attendance	1st term Major Required: ENGG2310/ESTR2300, IERG3080/ ESTR3308, IERG3800, 3820, 4998	11
	Major Elective(s): 2 courses	6
	2nd term Major Required: IERG3060, 3810, 4999	7
	Major Elective(s): 2 courses	6
Total (including Faculty Package):		**52**

Bachelor of Engineering (Information Engineering) and Bachelor of Business Administration (Integrated BBA Programme) Double Degree Option

1st Degree: Bachelor of Engineering (Information Engineering)

Major Programme Requirement

Students are required to complete a minimum of 75 units of courses as follows:

		Units
1.	Faculty Package: ENGG1100/ESTR1000, ENGG1110/ESTR1002, ENGG2601, 2602	9
2.	Foundation Science Courses:	9
(a)	2 courses from the following, in which at least 3 units must be a Physics course: Chemistry Courses: CHEM1380 Life Science Courses: LSCI1001, 1003 Physics Courses[a]: ENGG1310/ESTR1003, PHYS1003, 1110 Other Courses: CSCI1120/ESTR1100, CSCI1130/ESTR1102	
(b)	IERG2060/ESTR2304	
3.	Foundation Mathematics Courses: ENGG1410/ESTR1004, ENGG2420/ESTR2000, ENGG2470/ESTR2012, MATH1510[b]	12
4.	Required Courses:	
(a)	CSCI1140, CSCI2100/ESTR2102, ENGG2310/ESTR2300, IERG2051/ESTR2302, IERG3060, IERG3080/ESTR3308, IERG3310/ESTR3310, IERG3800, 3810, 3820	22
(b)	Research Component Courses[c]: IERG4998, 4999	6
5.	Elective Courses: Out of the 17 Elective Course units, at least 12 units should be from the following courses: CSCI3150/ESTR3102, ENGG1820, IERG3010/ESTR3300,	17

IERG3050, IERG3280/ESTR3302, IERG3300/ESTR3304, IERG3320/ESTR3306, IERG3830, 4004, 4030, IERG4080/ESTR4312, IERG4090/ESTR4302, IERG4100/ESTR4304, IERG4110/ESTR4314, IERG4130/ESTR4306, IERG4150/ESTR4322, IERG4160, IERG4180/ESTR4308, IERG4190, 4210, 4220, 4230, IERG4300/ESTR4300 [*ENGG4030], IERG4330/ESTR4316, IERG4340, 4350, 4831, 4841, IERG5020 [^IERG4020/ESTR4318], IERG5040/ENGG5392, IERG5090, IERG5100/ENGG5303, IERG5130, 5140, IERG5154/ENGG5301, IERG5200, 5230, IERG5240/ENGG5383, IERG5270, 5280, 5290, IERG5300/ENGG5302, IERG5310, 5320, 5330, 5340, 5350, 5590

The remaining units, if any, can be fulfilled by any BMEG/CENG/CSCI/EEEN/ELEG/ENER/ENGG/ESTR/FTEC/ MAEG/SEEM course(s) at 3000 and above level.

Streams

Students may choose not to specialize in any stream or to specialize in one or more of the five streams and complete a minimum of 12 units of courses prescribed by the stream.

Big Data: Systems and Applications
CSCI3320, 4180, 4190, ELEG5491, IERG3320/ESTR3306, IERG4080/ESTR4312, IERG4160, 4230, IERG4300/ESTR4300 [*ENGG4030] (required), IERG4330/ESTR4316, IERG5130, 5350

Communications
IERG3010/ESTR3300, IERG3280/ESTR3302, IERG3300/ESTR3304, IERG4030, IERG4100/ESTR4304, IERG4110/ESTR4314, IERG4130/ESTR4306, IERG4230, 4340, IERG5020 [^IERG4020/ESTR4318], IERG5040/ENGG5392, IERG5100/ENGG5303, IERG5200, 5230, 5280, 5330

Cyber Security
CSCI3150/ESTR3102, IERG4004, IERG4130/ESTR4306 (required), IERG4150/ESTR4322, IERG4210, 4220, 4350, IERG5240/ENGG5383, IERG5310, 5320, 5590

Internet Engineering
CSCI3150/ESTR3102 (required), IERG3050, IERG3280/ESTR3302, IERG3300/ESTR3304, IERG4080/ESTR4312, IERG4090/ESTR4302, IERG4130/ESTR4306, IERG4180/ESTR4308, IERG4190, 4210, 4831, 4841, 5090, 5270, 5280

Enrichment
CSCI3160/ESTR3104, IERG3010/ESTR3300, IERG3050, IERG3280/ESTR3302, IERG3300/ESTR3304, IERG4100/ESTR4304, IERG4190, IERG4300/ESTR4300 [*ENGG4030], IERG5154/ ENGG5301, IERG5200, 5270, 5290, IERG5300/ENGG5302

Total: 75

In addition to fulfilling the above Major Programme Requirement, students may also challenge themselves by taking the following stream offered by the Faculty:

Engineering Leadership, Innovation, Technology and Entrepreneurship (ELITE) Stream[d]

Elective Courses:

15 units of courses[e]:

i)   12 units of ESTR courses of which at most 6 units of courses at 1000 or 2000 level and at least 6 units of courses at 3000 or 4000 level[f]

ii)   3 units of BMEG/CENG/CSCI/ELEG/ENGG/IERG/MAEG/SEEM courses at 5000 level[g]

Explanatory Notes:

1.   Students who have completed the courses ENGG1110/ESTR1002, ENGG2601 and 2602 (or equivalent courses as approved by the Sub-Committee on Education Technologies) will be eligible to apply for exemption of 1 unit of University Core IT Requirement.

    Students are required to apply for the exemption. When exemption from a particular course is recognized, students can only be exempted from the course but not the units. Please follow the application procedures as announced by the IT Foundation Course Office at https://engg1000.cse.cuhk.edu.hk.

2.   BMEG/CENG/CSCI/EEEN/ELEG/ENER/ENGG/ESTR/IERG/MAEG/SEEM required and major elective courses at 2000 and above level as well as IERG2060/ESTR2304 will be included in the calculation of Major GPA for honours classification, excluding courses in Faculty Package, Foundation Science courses and Foundation Mathematics courses.

3.   Students satisfying all the requirements of a stream (except the ELITE Stream, which will be officially recorded on the academic transcript) will be given a certifying letter upon request. For details, please refer to the Department for information.

4.   Students are advised to take some courses of the University Core Requirements or Major courses in summer sessions to reduce their course load in regular terms.

[a]   The compulsory Physics course shall be taken in accordance with students' academic backgrounds as follows:

        i)   Students without HKDSE Physics or who have attained Level 2 or below in HKDSE Physics or Combined Science with Physics Component shall take PHYS1003 in advance.

        ii)   Students who have attained Level 3 or above in HKDSE Physics or Combined Science with Physics component shall take either ENGG1310/ESTR1003 or PHYS1110.

        iii)   Non-JUPAS students will be assigned to take either PHYS1003 or 1110 according to advice of the Engineering Physics Panel.

        iv)   Mainland students with Gao Kao examination results will be assigned to take either ENGG1310/ESTR1003 or PHYS1110 according to advice of the Engineering Physics Panel.

[b]   i)   Non-JUPAS admittees and JUPAS admittees with HKDSE Mathematics Extended Modules I or II are required to attend a Mathematics Placement Test. Students who fail or are absent from the Placement Test will be required to take MATH1020 in the same term when they take MATH1510.

        ii)   JUPAS admittees without HKDSE Mathematics Extended Modules I or II are required to take MATH1020 concurrently with MATH1510.

        iii)   Students who fail MATH1510 in Term 1 will have to retake the course in Term 2. The pre-assigned course, ENGG1410, will also be dropped.

[c]   Students who have declared to specialize in the ELITE Stream will be required to complete 6 units of ESTR4998 and 4999 to substitute for IERG4998 and 4999.

[d]   Details of the entrance and coursework requirements, and declaration procedures for the ELITE Stream can be found at the ELITE website (www.erg.cuhk.edu.hk/elite). Non-ELITE Engineering students may be allowed to take ESTR courses. Students are required to seek approval from their respective Major Programmes for using

ESTR courses taken to fulfill the Major Programme Requirement. Details are available at the ELITE website.

[e] Students can use up to 9 units of courses which have been taken to fulfill the requirements of items 1 to 5 above to fulfill the elective requirements of the ELITE Stream. Item 4(b) Research Component Courses will not be included in these 9 units. A full list of ESTR courses is available at the ELITE website.

[f] Students can use BMEG/CENG/CSCI/ELEG/ENGG/IERG/MAEG/SEEM courses at 5000 level to substitute for ESTR courses at 3000 or 4000 level, subject to the approval of the Stream Director and the Associate Dean (Education).

[g] The requirement of at least 3 units of Engineering courses at 5000 level is a requirement for the ELITE Stream only. It should not be interpreted as a requirement of the Major Programme.

[^] Course offered in 2016-17 and before.

[*] Course offered in 2017-18 and before.

Requirements for admission to the 2nd degree programme

1.   Admission to the second degree programme is guaranteed if students have:

  i.   fulfilled all graduation requirements of the first degree programme;
  ii.   Major GPA of at least 3.0 upon completion of studies of the first degree programme (ERG); and
  iii. taken at least 30 relevant units, of which includes ELTU2014, ELTU3014 and mutually recognized courses by both the Engineering and Business Administration Faculties. In addition, students should have achieved a GPA of at least 3.0 in these courses while pursuing the first degree programme. For details of the mutually recognized courses, please refer to the explanatory notes on mutual recognition or exclusion.

  Students who do not satisfy the above requirements may still apply for admission to the second degree programme which has discretion to judge the suitability of the students for studying for the second degree through assessments like conducting interview, considering the recommendation from the first degree programme etc.

  Upon fulfillment of the requirements of the first degree programme, students can still choose to or not to pursue the second degree programme. If a student decides not to pursue the second degree programme but has fulfilled the requirements of a relevant BBA minor programme, a minor of that BBA programme would be awarded.

2nd Degree: Bachelor of Business Administration (Integrated BBA Programme)

Major Programme Requirement

Students are required to complete a minimum of 55 units of courses as follows:

		Units
1.	Faculty Package: DSME1030, 1040, MGNT1020	9
2.	Required Courses: ACCT2111, 2121, DSME2011, 2030, 2051, FINA2010, MGNT2510, 2610, 4010, MKTG2010	31
3.	Elective Courses (Concentration): Students must choose at least one concentration and take five or six	15-18

courses among the courses prescribed under respective concentration area as follows:

(a) Business Economics
  (i) DSME2021, 4110;
  (ii) two courses selected from: DSME3030, 3050, 3080, 3090, 4040, 4080; and
  (iii) one DSME course at 3000 or above level, excluding the courses taken for fulfillment of requirement (i) or (ii)

(b) Business Analytics
  (i) DSME2021, 2040, 4020;
  (ii) One course selected from: DSME4070, 4240, 4260; and
  (iii) One course selected from: DSME3030, 4030, 4110, 4220, 4280, MKTG4120

(c) General Finance
  (i) DSME2021 or FINA2020;
  (ii) 12 units of FINA courses at 3000 or above level, excluding the courses taken for fulfillment of requirement (iii), with no more than three 1-unit FINA courses; and
  (iii) One course from FINA3070, 3080, 4040, 4130, 4140, 4390

(d) Financial Engineering
  (i) DSME2021 or FINA2020;
  (ii) four courses selected from: FINA3080, 3220, 4110, 4120, 4150, 4160, 4190, 4210, 4220, 4250, 4260, 4370, 4380; and
  (iii) one course from FINA4040, 4130, 4140, 4390

(e) Insurance and Risk Management
  (i) DSME2021 or FINA2020, and FINA3210;
  (ii) three courses selected from: FINA2210, 3080, 3230, 3240, 3280, 4230, 4240; and
  (iii) one course from FINA4040, 4130, 4140, 4270, 4291, 4390

(f) Management of International Business
  (i) MGNT3580, 4150, MKTG3010; and
  (ii) three courses selected from: MGNT3010, 3080, 4080, 4090, 4130, 4140, 4510, 4530, 4540, 4550, 4570, 4600, 4620

(g) Human Resource Management
  (i) MGNT2040, 3010, MKTG3010; and
  (ii) three courses selected from: MGNT3040, 3060, 3090, 4050, 4060, 4080, 4110, 4130, 4140, 4620

(h) Marketing
  (i) MKTG3010, 3020, 3030, 4040; and
  (ii) two courses selected from: MKTG3040, 3050, 3060, 4010, 4020, 4030, 4050, 4070, 4080, 4090, 4100, 4110, 4160

(i) Quantitative Marketing
  (i) MKTG3010, 4080, 4090, 4120; and
  (ii) two courses selected from: MKTG3020, 3030, 3060, 4030, 4040, 4070, 4130, 4150, 4160, 4170, 4180, 4190

(j) General Business
  (i) DSME2021/FINA2020/MKTG3010; and
  (ii) 12 units of DSME/FINA/MGNT/MKTG courses at 3000 or above level, excluding the courses taken for fulfillment of requirement (i), with no more than three 1-unit FINA courses

Total: **55-58**

Explanatory Notes:
1. ACCT/DSME/FINA/IBBA/MGNT/MKTG courses at 2000 and above level

(excluding ACCT2111 and 2121) will be included in the calculation of Major GPA for honours classification.

2. Double concentrations (i) among the finance-related concentration areas (i.e. any combination of General Finance, Financial Engineering, Insurance and Risk Management), and (ii) in Marketing and Quantitative Marketing are not allowed.

3. DSME2021 and the associated units can be used to satisfy concentration requirements of double concentrations within (a) to (e) and (j), except for the impermissible combination of concentrations as stipulated in Note 2 above.

MKTG3010 and the associated units can be used to satisfy concentration requirements of double concentrations within (f) to (j), except for the impermissible combination of concentrations as stipulated in Note 2 above.

FINA2020 and the associated units can be used to satisfy concentration requirements of double concentrations within (c) to (e) and (j), except for the impermissible combination of concentrations as stipulated in Note 2 above.

MGNT3010 and the associated units can be used to satisfy concentration requirements of double concentrations within (f) and (g).

Explanatory Note on Mutual Recognition or Exclusion:

1. DSME4140 and the associated units can be exempted from the requirement of the second degree by successfully completing IERG3310/ESTR3310.

Recommended Course Pattern

	1st degree: Bachelor of Engineering (Information Engineering)	Units	2nd degree: Bachelor of Business Administration (Integrated BBA Programme)	Units
First Year of Attendance	1st term Faculty Package: ENGG1100/ 1110/ESTR1000/1002	3	1st term Faculty Package: Major Required:	
	Major Required: CHEM1380/ CSCI1120/1130/ENGG1310/ ESTR1003/1100/1102/ LSCI1001/1003/PHYS1003/ 1110, MATH1510 Major Elective(s):	6	Major Elective(s):	
	2nd term Faculty Package: ENGG1100/ 1110/ESTR1000/1002	3	2nd term Faculty Package: Major Required:	
	Major Required: CHEM1380/ CSCI1120/1130/ENGG1310/ ESTR1003/1100/1102/ LSCI1001/1003/PHYS1003/ 1110, ENGG1410/ESTR1004 Major Elective(s):	6	Major Elective(s):	
Second Year of Attendance	1st term Major Required: CSCI1140, ENGG2420/ESTR2000, IERG2060/ESTR2304 Major Elective(s):	7	1st term Faculty Package: DSME1030, MGNT1020 Major Required: Major Elective(s):	3-6

	2nd term Faculty Package: ENGG2601, 2602 Major Required: CSCI2100/ ESTR2102, ENGG2470/ ESTR2012, IERG2051/ ESTR2302 Major Elective(s):	3 9	2nd term Faculty Package: DSME1040, MGNT1020 Major Required: Major Elective(s):	3-6
Third Year of Attendance	1st term Major Required: ENGG2310/ ESTR2300, IERG3080/ ESTR3308, IERG3310/ ESTR3310, IERG3800, 3820 Major Elective(s):	11	1st term Major Required: ACCT2111, DSME2011 Major Elective(s):	7
	2nd term Major Required: IERG3060, 3810 Major Elective(s): 2 courses	4 5-6	2nd term Major Required: ACCT2121 Major Elective(s): 1 course	3 3
Fourth Year of Attendance	1st term Major Required: IERG4998 Major Elective(s): 2 courses	3 6	1st term Major Required: MKTG2010, FINA2010 Major Elective(s):	6
	2nd term Major Required: IERG4999 Major Elective(s): 2 courses	3 6	2nd term Major Required: DSME2030, 2051 Major Elective(s):	6
Fifth Year of Attendance			1st term Major Required: MGNT2510, 2610, 4010 Major Elective(s): 0-1 course	9 0-3
			2nd term Major Required: Major Elective(s): 4 courses	12
	Total (including Faculty Package):	**75-76**	**Total (including Faculty Package):**	**55-58**

Minor Programme Title Information Engineering

Minor Programme Requirement

Students are required to complete a minimum of 18 units of courses as follows:

		Units
1.	Required Courses: CSCI2100/ESTR2102, IERG3310/ESTR3310	6
2.	Elective Courses: CSCI3150/ESTR3102, IERG3010/ESTR3300, IERG3050, IERG3280/ESTR3302, IERG3300/ESTR3304,	12

IERG3320/ESTR3306, IERG4004, 4030, IERG4080/ESTR4312, IERG4090/ESTR4302, IERG4100/ESTR4304, IERG4110/ESTR4314, IERG4130/ESTR4306, IERG4150/ESTR4322, IERG4160, IERG4180/ESTR4308, IERG4190, 4210, 4220, 4230, IERG4300/ESTR4300 [*ENGG4030], IERG4330/ESTR4316, IERG4340, 4350, IERG5020 [^IERG4020/ESTR4318], IERG5040/ENGG5392, IERG5090, IERG5100/ENGG5303, IERG5130, 5140, IERG5154/ENGG5301, IERG5200, 5230, IERG5240/ENGG5383, IERG5270, 5280, 5290, IERG5300/ENGG5302, IERG5310, 5320, 5330, 5340, 5350, 5590

	Total:	**18**

Explanatory Notes:

[^]   Course offered in 2016-17 and before.
[*]   Course offered in 2017-18 and before.

Course List		
Course Code	*Course Title*	*Unit(s)*
ENGG1310	Engineering Physics: Electromagnetics, Optics and Modern Physics	3
ENGG1410	Linear Algebra and Vector Calculus for Engineers	3
ENGG1820	Engineering Internship	1
ENGG2310	Principles of Communication Systems	3
ENGG2420	Complex Analysis and Differential Equations for Engineers	3
ENGG2470	Probability for Engineers	3
ENGG4030	Web-scale Information Analytics	3
ENGG5301	Information Theory	3
ENGG5302	Random Processes	3
ENGG5303	Advanced Wireless Communications	3
ENGG5383	Applied Cryptography	3
ENGG5392	Lightwave System Technologies	3
ESTR1003	Engineering Physics: Electromagnetics, Optics and Modern Physics	3
ESTR1004	Linear Algebra and Vector Calculus for Engineers	3
ESTR2000	Complex Analysis and Differential Equations for Engineers	3
ESTR2012	Probability for Engineers	3
ESTR2300	Principles of Communication Systems	3
ESTR2302	Signals and Systems	3
ESTR2304	Basic Analog and Digital Circuits	3
ESTR2306	Introduction to Systems Programming	3
ESTR3300	Digital Communications	3
ESTR3302	Networks: Technology, Economics, and Social Interactions	3
ESTR3304	Introduction to Stochastic Processes	3
ESTR3306	Social Media and Human Information Interaction	3
ESTR3308	Information and Software Engineering Practice	3
ESTR3310	Computer Networks	3
ESTR4300	Web-scale Information Analytics	3
ESTR4302	Networking Protocols and Systems	3
ESTR4304	Wireless Communication Systems	3
ESTR4306	Introduction to Cyber Security	3

ESTR4308	Network Software Design and Programming	3
ESTR4312	Building Scalable Internet-based Services	3
ESTR4314	Hands-on Wireless Communication	3
ESTR4316	Programming Big Data Systems	3
ESTR4318	Telecommunication Switching and Network Systems	3
ESTR4322	Introduction to Cryptography	3
IERG2051	Signals and Systems	3
IERG2060	Basic Analog and Digital Circuits	3
IERG3010	Digital Communications	3
IERG3050	Simulation and Statistical Analysis	3
IERG3060	Microcontrollers and Embedded Systems	3
IERG3080	Information and Software Engineering Practice	3
IERG3280	Networks: Technology, Economics, and Social Interactions	3
IERG3300	Introduction to Stochastic Processes	3
IERG3310	Computer Networks	3
IERG3320	Social Media and Human Information Interaction	3
IERG3800	Information Infrastructure Design Lab	1
IERG3810	Microcontrollers and Embedded System Laboratory	1
IERG3820	Communications Laboratory	1
IERG3830	Product Design and Development	3
IERG4004	E-payment Systems and Cryptocurrency Technologies	3
IERG4020	Telecommunication Switching and Network Systems	3
IERG4030	Optical Communications	3
IERG4080	Building Scalable Internet-based Services	3
IERG4090	Networking Protocols and Systems	3
IERG4100	Wireless Communication Systems	3
IERG4110	Hands-on Wireless Communication	3
IERG4130	Introduction to Cyber Security	3
IERG4150	Introduction to Cryptography	3
IERG4160	Image and Video Processing	3
IERG4180	Network Software Design and Programming	3
IERG4190	Multimedia Coding and Processing	3
IERG4210	Web Programming and Security	3
IERG4220	Secure Software Engineering	3
IERG4230	Introduction to Internet of Things	3
IERG4300	Web-scale Information Analytics	3
IERG4330	Programming Big Data Systems	3
IERG4340	Emerging Technologies in Information Engineering	3
IERG4350	Cloud Computing Security	3
IERG4831	Networking Laboratory I	2
IERG4841	Networking Laboratory II	2
IERG4998	Final Year Project I	3
IERG4999	Final Year Project II	3
IERG5020	Telecommunication Switching and Network Systems	3
IERG5040	Lightwave System Technologies	3
IERG5090	Advanced Networking Protocols and Systems	3
IERG5100	Advanced Wireless Communications	3
IERG5130	Probabilistic Models and Inference Algorithms for Machine Learning	3
IERG5140	Lightwave Networks	3
IERG5154	Information Theory	3
IERG5200	Channel Coding and Modulation	3

IERG5230	Algorithms and Realization of Internet of Things Systems	3
IERG5240	Applied Cryptography	3
IERG5270	Advanced Topics in P2P Networks and Systems	3
IERG5280	Mobile Networking	3
IERG5290	Network Coding Theory	3
IERG5300	Random Processes	3
IERG5310	Security and Privacy in Cyber Systems	3
IERG5320	Digital Forensics	3
IERG5330	Network Economics	3
IERG5340	IT Innovation and Entrepreneurship	3
IERG5350	Reinforcement Learning	3
IERG5590	Advanced Topics in Blockchain	3