

Electronic Engineering
Applicable to students admitted in 2025-26

Major Programme Requirement

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

| | Units |
|--|-----------|
| 1. Faculty Package: ENGG1110/ESTR1002, ENGG1111, ENGG1120/ESTR1005, ENGG1125/ESTR1007[a] | 9 |
| 2. Foundation Courses: (a) ELEG2700 (b) 6 units of Physics Courses: ENGG1310/ESTR1003, PHYS1110 (or 1003)[b] (c) 9 units of Mathematics Courses: ENGG1130/ESTR1006[c], ENGG2720/ESTR2014, ENGG2740/ESTR2016, ENGG2760/ESTR2018, | 18 |
| 3. Required Courses: (a) CSCI1120, ELEG2201, 2202, ELEG2310/ESTR2300, ELEG2601, 2602, ELEG3201/ESTR3200, ELEG3213/ESTR3214, ENGG2030/ESTR2206# | 24 |
| (b) Research Component Courses[d]: ELEG4998, 4999 | 6 |
| 4. Elective Courses (at least 6 units at 4000 level)[e]: CENG4120#, CSCI2100/ESTR2102, CSCI2520, 3100, 3320#, EEEN4020#/ESTR4402#, ELEG3103/ESTR3216, ELEG3202, 3207, 3214, ELEG3301/ESTR3204, ELEG3302, ELEG3303/ESTR3206, ELEG3503, 3601, 3701, 3710, 3910, 4211, ELEG4214/ESTR4222, ELEG4215, 4216, ELEG4311/ESTR4216, ELEG4312, 4313, ELEG4511/ESTR4218, ELEG4512, 4701, ENGG3802, 3803, IERG3080, IERG3310#/ESTR3310#, SEEM2440/ESTR2500 (or DOTE1030)[f] | 18 |
| 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[g]

Elective Courses:

15 units of courses[h]:

- 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[i]
- ii) 3 units of AIST/BMEG/CENG/CSCI/EEEN/ELEG/ENGG/IERG/MAEG/SEEM research postgraduate courses at 5000 level[j]

Explanatory Notes:

1. ELEG and ENGG courses at 2000 and above level as well as those labeled as #, and their reciprocal ESTR courses will be included in the calculation of Major GPA for honours

- classification, excluding courses in Faculty Package and Foundation courses.
2. Results of the graduation project as prescribed by ELEG4999/ESTR4999 will be included in the calculation for honours classification.
 3. Guidance in course selection:
Students who wish to pursue their career goals as a professional engineer, research scientist, or engineering entrepreneur may take the elective courses as recommended below:
 - Professional Engineering**
 - a) Elective course: ELEG3710
 - b) ELEG4998 and 4999[c] in a topic of professional engineering nature
 - Research**
 - a) Elective courses: ELEG3910
 - b) ELEG4998 and 4999[c] in a topic of research nature
 - Entrepreneurship**
 - a) Elective course: ENGG3802 and 3803
 - b) ELEG4998 and 4999[c] in a topic of entrepreneurship nature (related to the project chosen for ENGG3803)
 4. This Programme is eligible for the Hong Kong Institution of Engineers (HKIE) Scheme "A" Training in Control, Automation and Instrumentation (CAI) Discipline on condition that the graduates must have completed any two of the following courses: ELEG3103, 3207, 3701, 4312, 4511, 4701 or BMEG3420.
This Programme is eligible for the Hong Kong Institution of Engineers (HKIE) Scheme "A" Training in Electronics (ENS) Discipline on condition that the graduates must have completed one of the following courses: ELEG3103, 3302, 4215, 4312, 4512 or BMEG3420, 4103.
This Programme is eligible for the Hong Kong Institution of Engineers (HKIE) Scheme "A" Training in Information (INF) Discipline on condition that the graduates must have completed the following courses: CSCI2100 and 3100.
Details of HKIE Discipline Matching Results for Accredited Degrees (Scheme "A") can be found at the HKIE website (<https://hkie.org.hk/en/quali/disciplineforaccreddeg/>).
- [a]
 - i) JUPAS admittees without HKDSE Mathematics Extended Modules I or II are required to take ENGG1040 before they can take ENGG1125.
 - ii) JUPAS admittees with the following HKDSE results do not need to take ENGG1040 and therefore will not be invited for the Mathematics Placement Test:
 - Level 5** in Mathematics Extended Module I; or
 - Level 5* or above in Mathematics Extended Module II.
 - iii) Non-JUPAS admittees with the following public examination results do not need to take ENGG1040 and therefore will not be invited for the Mathematics Placement Test:
 - Grade 6 or above in IB Mathematics Analysis and Approaches (HL); or
 - Grade 7 in IB Mathematics Applications and Interpretation (HL); or
 - Grade A* in GCE-AL Further Mathematics.
 - iv) Other admittees except those specified above, are required to attend a Mathematics Placement Test. Students who fail or are absent from the Placement Test will be required to take ENGG1040 before they can take ENGG1125.
 - [b] Students are required to take either PHYS1003 or 1110 to fulfill the Foundation course (Physics) requirements in accordance with students' HKDSE results or placement test results as follows:
 - i) Students who have attained Level 4 or above in HKDSE Mathematics (Compulsory Part) AND Level 4 or above in Physics or Level 5 or above in Combined Science with Physics Component shall take PHYS1110.
 - ii) Students with HKDSE results but did not attain the academic levels as stated in (i) shall take PHYS1003.
 - iii) Students without HKDSE results shall sit for the placement test arranged by the

Department of Physics. Students who pass the placement test shall take PHYS1110. Students who fail or are absent from the placement test shall take PHYS1003.

- [c] Students who fail ENGG1125 in Term 1 will have to retake the course in Term 2. The pre-assigned ENGG1130 in Term 2, will therefore be dropped.
- [d] Students who have declared to specialize in the ELITE Stream will be required to complete 6 units of ESTR4998 and 4999 to substitute for ELEG4998 and 4999.
- [e] Students can use AIST/BMEG/CENG/CSCI/EEEN/ELEG/ENGG/IERG/MAEG/SEEM research postgraduate courses at 5000 level to substitute for elective courses listed in the Major Programme Requirement at 3000 or 4000 level, subject to the approval of the Chairman of Departmental Curriculum Committee and the Department Chairman.
- [f] Students can take either one of the courses but not both.
- [g] 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/erg/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.
- [h] 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.
- [i] Students can use AIST/BMEG/CENG/CSCI/EEEN/ELEG/ENGG/IERG/MAEG/SEEM research postgraduate 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).
- [j] 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.

| | Recommended Course Pattern | Units |
|----------------------------------|--|--------|
| First Year of Attendance | 1 st term Faculty Package: ENGG1110/ESTR1002, ENGG1111, ENGG1125/ESTR1007 Major Required: PHYS1110 (or 1003) | 6 3 |
| | 2 nd term Faculty Package: ENGG1120/ESTR1005 Major Required: ELEG2201, ENGG1130/ESTR1006, ENGG1310/ESTR1003 Major Elective(s): | 3 9 |
| | Summer session Major Required: ELEG2602 | 1 |
| | | |
| Second Year of Attendance | 1 st term Major Required: CSCI1120, ELEG2202, 2700, ENGG2720/ESTR2014, ENGG2760/ESTR2018 Major Elective(s): | 13 |
| | 2 nd term Major Required: ELEG3201/ESTR3200, ENGG2030/ESTR2206, ENGG2740/ESTR2016 Major Elective(s): | 8 |
| | | |
| Third Year of | 1 st term Major Required: ELEG2310/ESTR2300, ELEG2601, | 8 |

| | | |
|------------------------------------|--|--------|
| Attendance | ELEG3213/ESTR3214 Major Elective(s): 1 course | 3 |
| | 2 nd term Major Required: Major Elective(s): 3 courses | 9 |
| | | |
| Fourth Year of Attendance | 1 st term Major Required: ELEG4998 Major Elective(s): 2 courses | 3 6 |
| | 2 nd term Major Required: ELEG4999 Major Elective(s): | 3 |
| | | |
| | | |
| | | |
| Total (including Faculty Package): | | 75 |

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

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

| | Units |
|---|-----------|
| 1. Faculty Package: ENGG1130/ESTR1006 | 3 |
| 2. Foundation Courses: ELEG2700, ENGG2720/ESTR2014, ENGG2740/ESTR2016 | 7 |
| 3. Required Courses: | |
| (a) CSCI1120, ELEG2310/ESTR2300, ELEG2601, 2602, ELEG3201/ESTR3200, ELEG3213/ESTR3214, ENGG2030/ESTR2206# | 18 |
| (b) Research Component Courses[a]: ELEG4998, 4999 | 6 |
| 4. Elective Courses (at least 6 units at 4000 level)[b]: CENG4120#, CSCI2100/ESTR2102, CSCI2520, 3100, 3320#, EEEN4020#/ESTR4402#, ELEG3103/ESTR3216, ELEG3202, 3207, 3214, ELEG3301/ESTR3204, ELEG3302, ELEG3303/ESTR3206, ELEG3503, 3601, 3701, 3710, 3910, 4211, ELEG4214/ESTR4222, ELEG4215, 4216, ELEG4311/ESTR4216, ELEG4312, 4313, ELEG4511/ESTR4218, ELEG4512, 4701, ENGG3802, 3803, IERG3080, IERG3310#/ESTR3310#, SEEM2440/ESTR2500 (or DOTE1030)[c] | 21 |
| Total: | 55 |

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]:

- 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]
- 3 units of AIST/BMEG/CENG/CSCI/EEEN/ELEG/ENGG/IERG/MAEG/SEEM research postgraduate courses at 5000 level[g]

Explanatory Notes:

- ELEG and ENGG courses at 2000 and above level as well as those labeled as #, and their

reciprocal ESTR courses will be included in the calculation of Major GPA for honours classification, excluding courses in Faculty Package and Foundation courses.

2. Results of the graduation project as prescribed by ELEG4999/ESTR4999 will be included in the calculation for honours classification.

3. Guidance in course selection:

Students who wish to pursue their career goals as a professional engineer, research scientist, or engineering entrepreneur may take the elective courses as recommended below:

Professional Engineering

- a) Elective course: ELEG3710
- b) ELEG4998 and 4999[a] in a topic of professional engineering nature

Research

- a) Elective courses: ELEG3910
- b) ELEG4998 and 4999[a] in a topic of research nature

Entrepreneurship

- a) Elective course: ENGG3802 and 3803
- b) ELEG4998 and 4999[a] in a topic of entrepreneurship nature (related to the project chosen for ENGG3803)

4. This Programme is eligible for the Hong Kong Institution of Engineers (HKIE) Scheme "A" Training in Control, Automation and Instrumentation (CAI) Discipline on condition that the graduates must have completed any two of the following courses: ELEG3103, 3207, 3701, 4312, 4511, 4701 or BMEG3420.

This Programme is eligible for the Hong Kong Institution of Engineers (HKIE) Scheme "A" Training in Electronics (ENS) Discipline on condition that the graduates must have completed one of the following courses: ELEG3103, 3302, 4215, 4312, 4512 or BMEG3420, 4103.

This Programme is eligible for the Hong Kong Institution of Engineers (HKIE) Scheme "A" Training in Information (INF) Discipline on condition that the graduates must have completed the following courses: CSCI2100 and 3100.

Details of HKIE Discipline Matching Results for Accredited Degrees (Scheme "A") can be found at the HKIE website (<https://hkie.org.hk/en/quali/disciplineforaccreddeg/>).

- [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 ELEG4998 and 4999.

- [b] Students can use AIST/BMEG/CENG/CSCI/EEEN/ELEG/ENGG/IERG/MAEG/SEEM research postgraduate courses at 5000 level to substitute for elective courses listed in the Major Programme Requirement at 3000 or 4000 level, subject to the approval of the Chairman of Departmental Curriculum Committee and the Department Chairman.

- [c] Students can take either one of the courses but not both.

- [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/erg/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 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.

- [f] Students can use AIST/BMEG/CENG/CSCI/EEEN/ELEG/ENGG/IERG/MAEG/SEEM research postgraduate 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.

| | Recommended Course Pattern (for Associate Degree holders admitted to senior-year places) | Units |
|---|--|--------------|
| First Year of Attendance | 1 st term Faculty Package: Major Required: CSCI1120, ELEG2310/ESTR2300, ELEG2700, ENGG2720/ESTR2014 Major Elective(s): 1 course | 11 3 |
| | 2 nd term Faculty Package: ENGG1130/ESTR1006 Major Required: ELEG3201/ESTR3200, ENGG2030/ESTR2206, ENGG2740/ESTR2016 Major Elective(s): 1 course | 3 8 3 |
| | Summer session Major Required: ELEG2602 | 1 |
| | 1 st term Major Required: ELEG2601, ELEG3213/ESTR3214, ELEG4998 Major Elective(s): 2 courses | 8 6 |
| | 2 nd term Major Required: ELEG4999 Major Elective(s): 3 courses | 3 9 |
| Total (including Faculty Package): | | 55 |

| | | |
|--|--|--------------|
| Major Programme Requirement (for 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: ENGG1130/ESTR1006 | 3 |
| 2. | Foundation Courses: ELEG2700, ENGG2720/ESTR2014, ENGG2740/ESTR2016 | 7 |
| 3. | Required Courses: | |
| (a) | CSCI1120, ELEG2310/ESTR2300, ELEG2601, 2602, ELEG3201/ESTR3200, ELEG3213/ESTR3214, ENGG2030/ESTR2206# | 18 |
| (b) | Research Component Courses[a]: ELEG4998, 4999 | 6 |
| 4. | Elective Courses (at least 6 units at 4000 level)[b]: CENG4120#, CSCI2100/ESTR2102, CSCI2520, 3100, 3320#, EEEN4020#/ESTR4402#, ELEG3103/ESTR3216, ELEG3202, 3207, 3214, ELEG3301/ESTR3204, ELEG3302, ELEG3303/ESTR3206, ELEG3503, 3601, 3701, 3710, 3910, 4211, ELEG4214/ESTR4222, ELEG4215, 4216, ELEG4311/ESTR4216, ELEG4312, 4313, ELEG4511/ESTR4218, ELEG4512, 4701, ENGG3802, 3803, IERG3080, IERG3310#/ESTR3310#, SEEM2440/ESTR2500 (or DOTE1030)[c] | 18 |
| 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[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 AIST/BMEG/CENG/CSCI/EEEN/ELEG/ENGG/IERG/MAEG/SEEM research postgraduate courses at 5000 level[g]

Explanatory Notes:

1. ELEG and ENGG courses at 2000 and above level as well as those labeled as #, and their reciprocal ESTR courses will be included in the calculation of Major GPA for honours classification, excluding courses in Faculty Package and Foundation courses.
2. Results of the graduation project as prescribed by ELEG4999/ESTR4999 will be included in the calculation for honours classification.
3. Guidance in course selection:

Students who wish to pursue their career goals as a professional engineer, research scientist, or engineering entrepreneur may take the elective courses as recommended below:

Professional Engineering

- a) Elective course: ELEG3710
- b) ELEG4998 and 4999[b] in a topic of professional engineering nature

Research

- a) Elective courses: ELEG3910
- b) ELEG4998 and 4999[b] in a topic of research nature

Entrepreneurship

- a) Elective course: ENGG3802 and 3803
- b) ELEG4998 and 4999[b] in a topic of entrepreneurship nature (related to the project chosen for ENGG3803)

4. This Programme is eligible for the Hong Kong Institution of Engineers (HKIE) Scheme "A" Training in Control, Automation and Instrumentation (CAI) Discipline on condition that the graduates must have completed any two of the following courses: ELEG3103, 3207, 3701, 4312, 4511, 4701 or BMEG3420.

This Programme is eligible for the Hong Kong Institution of Engineers (HKIE) Scheme "A" Training in Electronics (ENS) Discipline on condition that the graduates must have completed one of the following courses: ELEG3103, 3302, 4215, 4312, 4512 or BMEG3420, 4103.

This Programme is eligible for the Hong Kong Institution of Engineers (HKIE) Scheme "A" Training in Information (INF) Discipline on condition that the graduates must have completed the following courses: CSCI2100 and 3100.

Details of HKIE Discipline Matching Results for Accredited Degrees (Scheme "A") can be found at the HKIE website (<https://hkie.org.hk/en/quali/disciplineforaccreddeg/>).

- [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 ELEG4998 and 4999.

- [b] Students can use AIST/BMEG/CENG/CSCI/EEEN/ELEG/ENGG/IERG/MAEG/SEEM research postgraduate courses at 5000 level to substitute for elective courses listed in the Major Programme Requirement at 3000 or 4000 level, subject to the approval of the Chairman of Departmental Curriculum Committee and the Department Chairman.

- [c] Students can take either one of the courses but not both.

- [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/erg/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 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.

- [f] Students can use AIST/BMEG/CENG/CSCI/EEEN/ELEG/ENGG/IERG/MAEG/SEEM research postgraduate 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.

| | Recommended Course Pattern (for Higher Diploma holders admitted to senior-year places) | Units |
|---|--|--------------|
| First Year of Attendance | 1 st term Faculty Package: Major Required: CSCI1120, ELEG2310/ESTR2300, ELEG2700, ENGG2720/ESTR2014 Major Elective(s): | 11 |
| | 2 nd term Faculty Package: ENGG1130/ESTR1006 Major Required: ELEG3201/ESTR3200, ENGG2030/ESTR2206, ENGG2740/ESTR2016 Major Elective(s): 1 course | 3 8 3 |
| | Summer session Major Required: ELEG2602 | 1 |
| | | |
| Second Year of Attendance | 1 st term Major Required: ELEG2601, ELEG3213/ESTR3214, ELEG4998 Major Elective(s): 2 courses | 8 6 |
| | 2 nd term Major Required: ELEG4999 Major Elective(s): 3 courses | 3 9 |
| | | |
| Total (including Faculty Package): | | 52 |

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

1st Degree: Bachelor of Engineering (Electronic Engineering)

Major Programme Requirement

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

| | Units |
|--|--------------|
| 1. Faculty Package: ENGG1110/ESTR1002, ENGG1111, ENGG1120/ESTR1005ENGG1125/ESTR1007[a] | 9 |
| 2. Foundation Courses: | 18 |
| (a) ELEG2700 | |
| (b) 6 units of Physics Courses: ENGG1310/ESTR1003, PHYS1110 (or 1003)[b] | |
| (c) 9 units of Mathematics Courses: ENGG1130/ESTR1006[c], ENGG2720/ESTR2014, ENGG2740/ESTR2016, ENGG2760/ESTR2018, | |

| | | |
|---------------|--|-----------|
| 3. | Required Courses: | |
| (a) | CSCI1120, ELEG2201, 2202, ELEG2310/ESTR2300, ELEG2601, 2602, ELEG3201/ESTR3200, ELEG3213/ESTR3214, ENGG2030/ESTR2206# | 24 |
| (b) | Research Component Courses[d]: ELEG4998, 4999 | 6 |
| 4. | Elective Courses (at least 6 units at 4000 level)[e]: CENG4120#, CSCI2100/ESTR2102, CSCI2520, 3100, 3320#, EEEN4020#/ESTR4402#, ELEG3103/ESTR3216, ELEG3202, 3207, 3214, ELEG3301/ESTR3204, ELEG3302, ELEG3303/ESTR3206, ELEG3503, 3601, 3701, 3710, 3910, 4211, ELEG4214/ESTR4222, ELEG4215, 4216, ELEG4311/ESTR4216, ELEG4312, 4313, ELEG4511/ESTR4218, ELEG4512, 4701, ENGG3802, 3803, IERG3080, IERG3310#/ESTR3310#, SEEM2440/ESTR2500 (or DOTE1030)[f] | 18 |
| 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[g]

Elective Courses:

15 units of courses[h]:

- 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[i]
- ii) 3 units of AIST/BMEG/CENG/CSCI/EEEN/ELEG/ENGG/IERG/MAEG/SEEM research postgraduate courses at 5000 level[j]

Explanatory Notes:

1. 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.
2. ELEG and ENGG courses at 2000 and above level as well as those labeled as #, and their reciprocal ESTR courses will be included in the calculation of Major GPA for honours classification, excluding courses in Faculty Package and Foundation courses.
3. Results of the graduation project as prescribed by ELEG4999/ESTR4999 will be included in the calculation for honours classification.
4. Guidance in course selection:

Students who wish to pursue their career goals as a professional engineer, research scientist, or engineering entrepreneur may take the elective courses as recommended below:

Professional Engineering

- a) Elective course: ELEG3710
- b) ELEG4998 and 4999[c] in a topic of professional engineering nature

Research

- a) Elective courses: ELEG3910
- b) ELEG4998 and 4999[c] in a topic of research nature

Entrepreneurship

- a) Elective course: ENGG3802 and 3803
- b) ELEG4998 and 4999[c] in a topic of entrepreneurship nature (related to the project chosen for ENGG3803)

5. This Programme is eligible for the Hong Kong Institution of Engineers (HKIE) Scheme "A" Training in Control, Automation and Instrumentation (CAI) Discipline on condition that the graduates must have completed any two of the following courses: ELEG3103, 3207, 3701, 4312, 4511, 4701 or BMEG3420.

This Programme is eligible for the Hong Kong Institution of Engineers (HKIE) Scheme "A"

Training in Electronics (ENS) Discipline on condition that the graduates must have completed one of the following courses: ELEG3103, 3302, 4215, 4312, 4512 or BMEG3420, 4103.

This Programme is eligible for the Hong Kong Institution of Engineers (HKIE) Scheme "A" Training in Information (INF) Discipline on condition that the graduates must have completed the following courses: CSCI2100 and 3100.

Details of HKIE Discipline Matching Results for Accredited Degrees (Scheme "A") can be found at the HKIE website (<https://hkie.org.hk/en/quali/disciplineforaccreddeg/>).

- [a]
 - i) JUPAS admittees without HKDSE Mathematics Extended Modules I or II are required to take ENGG1040 before they can take ENGG1125.
 - ii) JUPAS admittees with the following HKDSE results do not need to take ENGG1040 and therefore will not be invited for the Mathematics Placement Test:
 - Level 5** in Mathematics Extended Module I; or
 - Level 5* or above in Mathematics Extended Module II.
 - iii) Non-JUPAS admittees with the following public examination results do not need to take ENGG1040 and therefore will not be invited for the Mathematics Placement Test:
 - Grade 6 or above in IB Mathematics Analysis and Approaches (HL); or
 - Grade 7 in IB Mathematics Applications and Interpretation (HL); or
 - Grade A* in GCE-AL Further Mathematics.
 - iv) Other admittees except those specified above, are required to attend a Mathematics Placement Test. Students who fail or are absent from the Placement Test will be required to take ENGG1040 before they can take ENGG1125.
- [b] Students are required to take either PHYS1003 or 1110 to fulfill the Foundation course (Physics) requirements in accordance with students' HKDSE results or placement test results as follows:
 - i) Students who have attained Level 4 or above in HKDSE Mathematics (Compulsory Part) AND Level 4 or above in Physics or Level 5 or above in Combined Science with Physics Component shall take PHYS1110.
 - ii) Students with HKDSE results but did not attain the academic levels as stated in (i) shall take PHYS1003.
 - iii) Students without HKDSE results shall sit for the placement test arranged by the Department of Physics. Students who pass the placement test shall take PHYS1110. Students who fail or are absent from the placement test shall take PHYS1003.
- [c] Students who fail ENGG1125 in Term 1 will have to retake the course in Term 2. The pre-assigned ENGG1130 in Term 2, will therefore be dropped.
- [d] Students who have declared to specialize in the ELITE Stream will be required to complete 6 units of ESTR4998 and 4999 to substitute for ELEG4998 and 4999.
- [e] Students can use AIST/BMEG/CENG/CSCI/EEEN/ELEG/ENGG/IERG/MAEG/SEEM research postgraduate courses at 5000 level to substitute for elective courses listed in the Major Programme Requirement at 3000 or 4000 level, subject to the approval of the Chairman of Departmental Curriculum Committee and the Department Chairman.
- [f] Students can take either one of the courses but not both.
- [g] 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/erg/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.
- [h] 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.
- [i] Students can use AIST/BMEG/CENG/CSCI/EEEN/ELEG/ENGG/IERG/MAEG/SEEM research postgraduate courses at 5000 level to substitute for ESTR courses at 3000 or 4000

- [j] level, subject to the approval of the Stream Director and the Associate Dean (Education). 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.

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 56 units of courses as follows:

| | Units |
|---|-------|
| 1. Faculty Package: DOTE1030, 1040, MGNT1020 | 9 |
| 2. Required Courses: ACCT2111, 2121, 2151 or 3151[a], DOTE2011, 2030, 2051, FINA2010, IBBA3040, MGNT2511, 2512, 2611, 4010, MKTG2010 | 32-33 |
| 3. Elective Courses (Concentration): Students must choose at least one concentration and take five or six courses among the courses prescribed under respective concentration area as follows: | 15-18 |
| (a) Business Economics | |
| (i) DOTE2021, 4110; | |
| (ii) two courses selected from: DOTE3000, 3011, 3030, 3050, 3080, 3090, 4040, 4080; and | |
| (iii) one DOTE course at 3000 or above level, excluding the courses taken for fulfillment of requirement (i) or (ii) | |
| (b) Business Analytics | |
| (i) DOTE2021, 2040, 4020; | |
| (ii) one course selected from: DOTE3010, 4070, 4240, 4260; and | |

- (iii) one course selected from: DOTE3030, 4030, 4110, 4220, 4280, MKTG4120
- (c) Finance
 - (i) DOTE2021 or FINA2020; and
 - (ii) 15 units selected from: DOTE3010, FINA courses at 3000 or above level (with no more than three 1-unit FINA courses)
- (d) Entrepreneurship
 - (i) MGNT1070, 2070; and
 - (ii) four courses selected from: DOTE3010, MGNT3080, 4070, 4090, 4130, 4160, 4170, 4270, 4570, 4711, 4712, 4713
- (e) Management of International Business
 - (i) MGNT3580, 4150; and
 - (ii) four courses selected from: DOTE3010, MGNT3010, 3080, 3100, 4080, 4090, 4110, 4130, 4140, 4510, 4530, 4540, 4550, 4570
- (f) Human Resource Management
 - (i) MGNT2040, 3010; and
 - (ii) four courses selected from: DOTE3010, MGNT3040, 3060, 3090, 3100, 4050, 4060, 4080, 4110, 4130, 4140,
- (g) Marketing
 - (i) MKTG3010, 3020, 3030, 4040; and
 - (ii) two courses selected from: MKTG3040, 3050, 4010, 4020, 4030, 4050, 4070, 4080, 4090, 4110, 4160, 4200
- (h) Big Data and Quantitative Marketing
 - (i) MKTG3010, 3060, 4080, 4090; and
 - (ii) two courses selected from: MKTG3020, 4030, 4050, 4120, 4150, 4160, 4170, 4180, 4190, 4200
- (i) General Business
 - (i) 3 units of DOTE/FINA/MGNT/MKTG courses at 2000 or above level; and
 - (ii) 12 units of DOTE/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: 56-60

Explanatory Notes:

1. ACCT/DOTE/FINA/IBBA/MGNT/MKTG courses at 2000 and above level (excluding ACCT2111, 2121, IBBA3040, MGNT2511 and 2512) will be included in the calculation of Major GPA for honours classification.
 2. Double concentrations in Marketing and Big Data and Quantitative Marketing are not allowed.
 3. DOTE2021 and the associated units can be used to satisfy concentration requirements of double concentrations within (a) to (c).
MGNT3010 and the associated units can be used to satisfy concentration requirements of double concentrations within (e) and (f).
 4. Courses taken for the concentration requirements of General Business Concentration cannot be counted towards the requirements of concentrations(a) to (h).
 5. Students claiming Entrepreneurship Concentration are not allowed to declare Minor in Entrepreneurship and Innovation.
- [a] ACCT2151 and ACCT3151 are mutually exclusive. Students who would like to pursue a career in accounting profession are advised to take ACCT3151 instead of ACCT2151.

Explanatory Notes on Mutual Recognition or Exclusion:

1. DOTE1030 and the associated units can be used to satisfy both the requirements of the first and second degrees.
2. DOTE2011 and the associated units can be exempted from the requirement of the second

degree by successfully completing ENGG2450/ESTR2005 OR ENGG2760/ESTR2018 and ENGG2780/ESTR2020.

3. DOTE4140 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 (Electronic Engineering) | Units | 2nd degree: Bachelor of Business Administration (Integrated BBA Programme) | Units |
| First Year of Attendance | 1 st term Faculty Package: ENGG1110/ESTR1002, ENGG1111, ENGG1125/ESTR1007 Major Required: PHYS1110 (or 1003) Major Elective(s): | 6 3 | 1 st term Faculty Package: Major Required: Major Elective(s): | |
| | 2 nd term Faculty Package: ENGG1120/ESTR1005 Major Required: ENGG1130/ESTR1006, ENGG1310/ESTR1003 Major Elective(s): | 3 6 | 2 nd term Faculty Package: Major Required: Major Elective(s): | |
| | Summer session Major Required: ELEG2602 | 1 | Summer session Faculty Package: DOTE1030/1040 | 3 |
| | | | | |
| Second Year of Attendance | 1 st term Major Required: CSCI1120, ELEG2202, 2700, ENGG2720/ESTR2014, ENGG2760/ESTR2018 Major Elective(s): | 13 | 1 st term Faculty Package: DOTE1030/1040 Major Required: Major Elective(s): | 3 |
| | 2 nd term Major Required: ELEG2201, ELEG3201/ESTR3200, ENGG2030/ESTR2206, ENGG2740/ESTR2016 Major Elective(s): | 11 | 2 nd term Major Required: Major Elective(s): | |
| | | | Summer session Faculty Package: MGNT1020 | 3 |
| | | | | |
| Third Year of Attendance | 1 st term Major Required: ELEG2310/ESTR2300, ELEG2601, ELEG3213/ESTR3214 Major Elective(s): 1 course | 8 3 | 1 st term Major Required/Major Elective(s): | 1-2 |
| | 2 nd term Major Required: Major Elective(s): 3 courses | 9 | 2 nd term Major Required/Major Elective(s): | 9 |
| | | | | |
| Fourth Year of Attendance | 1 st term Major Required: ELEG4998 Major Elective(s): 2 courses | 3 6 | 1 st term Major Required/Major Elective(s): | 6 |

| | | | | |
|---------------------------------------|--|----|--|-------|
| | 2 nd term Major Required: ELEG4999 Major Elective(s): | 3 | 2 nd term Major Required/Major Elective(s): | 6 |
| Fifth Year of Attendance | | | 1 st term Major Required/Major Elective(s): | 12-15 |
| | | | 2 nd term Major Required/Major Elective(s): | 13 |
| Total (including Faculty Package): | | 75 | Total (including Faculty Package): | 56-60 |

| | |
|---|------------|
| Minor Programme Title Electronic Engineering | |
| Minor Programme Requirement | |
| Students are required to complete a minimum of 18 units of courses, with at least 6 units at 3000 or above level, as follows: | |
| 1. Required Courses: ELEG2201, 2202[a], ENGG2030/ESTR2206 | Units 9 |
| 2. Elective Courses (at least 6 units at 4000 level): ELEG2310/ESTR2300, ELEG3103/ESTR3216, ELEG3201/ESTR3200, ELEG3202, 3207, ELEG3213/ESTR3214, ELEG3214, ELEG3301/ESTR3204, ELEG3302, ELEG3303/ESTR3206, ELEG3503, 3601, 3701, 3710, 4211, ELEG4214/ESTR4222, ELEG4215, 4216, ELEG4311/ESTR4216, ELEG4312, 4313, ELEG4511/ESTR4218, ELEG4512, 4701, ENGG3802, 3803 | 9 |
| Total: | 18 |
| Explanatory Notes: | |
| 1. No more than 9 units of courses taken to fulfill the requirements of the students' Major Programme(s) and other Minor Programme(s) respectively can be used to fulfill the requirement of this Minor Programme. | |
| [a] BMEG2300 is equivalent to ELEG2202. | |

| Course List | | |
|--------------------|--|----------------|
| <i>Course Code</i> | <i>Course Title</i> | <i>Unit(s)</i> |
| ELEG2201 | Digital Circuits and Computing Systems | 3 |
| ELEG2202 | Fundamentals of Electric Circuits | 3 |
| ELEG2310 | Principles of Communication Systems | 3 |
| ELEG2601 | Technology, Society and Engineering Practice | 2 |
| ELEG2602 | Engineering Practicum | 1 |
| ELEG2700 | Introduction to Electronic System Design | 3 |
| ELEG3103 | Robotic Perception and Intelligence | 3 |
| ELEG3201 | Microelectronic Devices and Circuits | 3 |
| ELEG3202 | Analog Integrated Circuits | 3 |
| ELEG3207 | Introduction to Power Electronics | 3 |
| ELEG3213 | Fundamentals of Applied Electromagnetics | 3 |

| | | |
|----------|--|---|
| ELEG3214 | Antennas and Wave Propagation for Wireless Communications | 3 |
| ELEG3301 | Principles of Semiconductor Devices | 3 |
| ELEG3302 | Fundamentals of Photonics | 3 |
| ELEG3303 | Introduction to Optical Communications | 3 |
| ELEG3503 | Introduction to Digital Signal Processing | 3 |
| ELEG3601 | Introduction to Electric Power Systems | 3 |
| ELEG3701 | Embedded Systems Design | 3 |
| ELEG3710 | Electronic Product Design and Development | 3 |
| ELEG3910 | Undergraduate Research in Electronic Engineering | 2 |
| ELEG4211 | CMOS Digital Integrated Circuits Design | 3 |
| ELEG4214 | RF Circuits for Wireless Systems | 3 |
| ELEG4215 | Power Converter Circuits | 3 |
| ELEG4216 | Design Methodology of Modern Digital Circuits | 3 |
| ELEG4311 | Physics and Technology of Semiconductor Devices | 3 |
| ELEG4312 | Micro-optic Devices and Systems | 3 |
| ELEG4313 | Integrated Photonics: Theory, Design and Practice | 3 |
| ELEG4511 | Digital Signal Processing and Applications | 3 |
| ELEG4512 | Digital Image Processing | 3 |
| ELEG4701 | Intelligent Interactive Robots Practice | 3 |
| ELEG4998 | Final Year Project I | 3 |
| ELEG4999 | Final Year Project II | 3 |
| ENGG1310 | Engineering Physics: Electromagnetics, Optics and Modern Physics | 3 |
| ENGG2030 | Signals and Systems | 3 |
| ENGG2720 | Complex Variables for Engineers | 2 |
| ENGG2740 | Differential Equations for Engineers | 2 |
| ENGG2760 | Probability for Engineers | 2 |
| ENGG3802 | Introduction to Engineering Entrepreneurship | 1 |
| ENGG3803 | Engineering Entrepreneurship Development Project | 2 |
| ESTR1003 | Engineering Physics: Electromagnetics, Optics and Modern Physics | 3 |
| ESTR2014 | Complex Variables for Engineers | 2 |
| ESTR2016 | Differential Equations for Engineers | 2 |
| ESTR2018 | Probability for Engineers | 2 |
| ESTR2206 | Signals and Systems | 3 |
| ESTR2300 | Principles of Communication Systems | 3 |
| ESTR3200 | Microelectronic Devices and Circuits | 3 |
| ESTR3204 | Principles of Semiconductor Devices | 3 |
| ESTR3206 | Introduction to Optical Communications | 3 |
| ESTR3214 | Fundamentals of Applied Electromagnetics | 3 |
| ESTR3216 | Robotic Perception and Intelligence | 3 |
| ESTR4216 | Physics and Technology of Semiconductor Devices | 3 |
| ESTR4218 | Digital Signal Processing and Applications | 3 |
| ESTR4222 | RF Circuits for Wireless Systems | 3 |