Bachelor of Engineering (Hons) Scheme in Electrical Engineering

2025 – 2026 [1]

THE HONG KONG POLYTECHNIC UNIVERSITY
香港理工大學 [2]

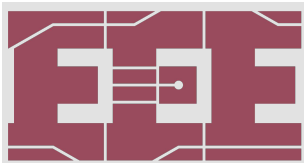
Bachelor of Engineering (Honours) [3]

Scheme in Electrical Engineering [4]

Full-time [5]

Programme Code: 46408 [6]

PROGRAMME REQUIREMENT DOCUMENT [7]



DEPARTMENT OF
ELECTRICAL AND
ELECTRONIC ENGINEERING
電機及電子工程學系

Bachelor of Engineering (Honours) Scheme in Electrical Engineering (4-year) [1]

Awards offered under the Scheme: [2]

Bachelor of Engineering (Honours) in Electrical Engineering [3]

Bachelor of Engineering (Honours) in Transportation Systems Engineering [4]

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This Programme Requirement Document (PRD) is subject to review and changes which the programme offering Faculty/Department can decide to make from time to time. Students will be informed of the changes as and when appropriate.

1 General Information

1.1 Programme Title

Bachelor of Engineering (Honours) Scheme in Electrical Engineering
電機工程學(榮譽)工學士組合課程

1.2 Host Department

Department of Electrical and Electronic Engineering

1.3 Duration and Mode of Attendance

Mode	Normal Duration
Full-time	4 years (2 years for Senior Year Intake)

* The exact study duration depends on the entry qualification of individual Associate Degree / Higher Diploma admittees.

1.4 Award Title

Students will be awarded one of the following awards upon successful completion of the graduation requirements of the programme:

- Bachelor of Engineering (Honours) in Electrical Engineering
  電機工程學(榮譽)工學士學位
- Bachelor of Engineering (Honours) in Transportation Systems Engineering
  運輸系統工程學(榮譽)工學士學位

Students admitted to the Scheme complete a common curriculum in Year 1 and then complete their preferred award in the next three years until graduation.

1.5 External Recognition

The BEng (Hons) in Electrical Engineering and BEng (Hons) in Transportation Systems Engineering programmes have been granted full accreditation by The Hong Kong Institution of Engineers (HKIE).

1.6 Credits Required for Graduation

Programmes	Normal Year 1 Intake	Senior Year Intake
BEng (Hons) in Electrical Engineering	Academic Credits: 120 Training Credits: 11 (including Work-Integrated Education Training)	Academic Credits: 60 Training Credits: 11 (including Work-Integrated Education Training)
BEng (Hons) in Transportation Systems Engineering	Academic Credits: 120 Training Credits: 11 (including Work-Integrated Education Training)	Academic Credits: 71 Training Credits: 11 (including Work-Integrated Education Training)

1.7 Minimum Entrance Requirements

(i) For entry with Hong Kong Diploma of Secondary Education Examination (HKDSE) qualifications

The general minimum entrance requirements are 4 core subjects and 2 elective subjects with:

- Level 3 in English Language and Chinese Language; AND
- Level 2 in Mathematics; AND
- Attained in Citizenship and Social Development; AND
- Level 3 in 2 other Elective subjects [can include Extended Modules of Mathematics (M1/M2)].

There is no compulsory subject requirement. Preferred elective subjects include:

- Extended Modules of Mathematics;
- Information and Communication Technology; and
- All single and combined Science subjects

(ii) For entry with A-Level qualifications

- Pass in 3 A-Level subjects; AND
- Satisfy the English Language Requirement.

(iii) For entry with International Baccalaureate (IB) qualifications

- IB Diploma; AND
- Satisfy the English Language Requirement.

(iv) For those with other qualifications

- An appropriate Diploma passed with credit or a Higher Certificate from a recognised institution; OR
- An appropriate Associate Degree / Higher Diploma from a recognised institution

(v) Qualifications equivalent to (i), (ii), (iii) or (iv) above.

Note 1: Credit transfer may be granted to applicants holding A-Level / IB / Associate Degree / Higher Diploma qualifications upon admission.

Note 2: Holding Associate Degree or Higher Diploma in Electrical Engineering or related Engineering discipline with good academic results at graduation may be considered for advanced standing entry to the Senior Year curriculum.

1.8 Study Options

Under the framework of the 4-year undergraduate degree programmes, students in this programme can work for either a single discipline Major, a Major plus a Minor or a Major plus a Secondary Major (i.e. X + Scheme). However, the Minor and Secondary Major options are not applicable to students who are admitted to Senior Year programme.

Minor Study 1

Minor study will be a free choice by students and not mandatory. Each student is allowed to take not more than one Minor. Students who opt for Minor study will be subject to the following regulations: 2

(i) A Minor programme is a collection of subjects totalling 18 credits with at least 50% (9 credits) of the subjects at Level 3 or above; 3

(ii) Students interested in a Minor must submit their applications to and obtain approval from the Minor-offering department, no later than the commencement of second year of study. Students should submit their applications to their Major department, which will indicate its support or otherwise (since the taking of a Minor will increase the student's study load), before the Minor-offering department makes a final decision on the application;

(iii) Students are expected to complete their approved Minor as part of their graduation requirements. Students who wish to withdraw from a Minor need to apply for approval officially from the Minor offering department, before the end of the add/drop period of the last Semester of study;

(iv) Students with approved Minor will be given a higher priority in taking the Minor subjects over the students who take the subjects as free-electives. 'Free electives' under the 4-year Ug degree programmes refers to any subjects offered by the University, unless otherwise specified;

(v) Subject to approval by the Minor-offering department, students may count up to 6 credits from their Major/General University Requirements (GUR) [including Language Communication Requirement (LCR) subjects at proficiency level] towards their chosen Minor. Nevertheless, students must take at least 6 credits from their chosen Minor programme in order to satisfy the residential requirement of their chosen Minor. In addition, to be eligible for the Major and Minor awards, the total number of credits taken by the students for their Major-Minor studies must not be lower than the credit requirement of the single discipline Major programme;

(vi) Credit transfer can be given for not more than 9 credits of a Minor programme if the previous credits were earned from approved institutions outside of the university; and not more than 12 credits of a Minor programme if the previous credits were earned from programmes offered by PolyU;

(vii) Only students with a GPA of 2.5 or above can be considered for Minor study enrolment. The Minor-offering department may set a quota and additional admission requirements for their Minor; and

(viii) Students are required to obtain a GPA of at least 1.70 in order to satisfy the requirement for graduation with a Major plus a Minor.

Note: There is no guarantee that a clash-free timetable can be provided for all students who pursue Minor study. 4

Secondary Major (only applicable to students opting BEng (Hons) in EE as their Major) 1

Studying on a Secondary Major is a free choice by students and not mandatory. Each student may take not more than one Secondary Major. Students who opt for a Secondary Major will be subject to the following regulations: 2

(i) Students are expected to complete the "X (Major in Electrical Engineering) + Secondary Major" within the normal duration of the major programme. 3

(ii) Students may count up to 12 credits of their Major/GUR subjects towards the Secondary Major. Nevertheless, students must take at least 12 credits from their chosen Secondary Major in order to satisfy the residential requirement of the chosen Secondary Major. Students who have completed more than 12 credits of subjects that are eligible for double counting will need to apply for graduation and indicate the subjects intended for double counting.

(iii) Students must apply to and obtain approval from the programme offering Department, normally no later than the commencement of the second year of study, to be admitted to the Secondary Major.

(iv) Only students with a Cumulative GPA of 2.70 or above may be considered for Secondary Major enrolment. Each Secondary Major may stipulate additional selection criteria for admission.

(v) Students must complete the Secondary Major as part of their graduation requirements. Students who wish to withdraw from the Secondary Major must obtain approval from the programme offering Department normally before the end of the add/drop period of the last semester of study.

(vi) If deemed appropriate by the programme offering Department, students are allowed to take a Major with a Secondary Major and a Minor. Subjects already double-counted for the Major and Secondary Major cannot be used to fulfil the Minor requirement.

The Secondary Major in Artificial Intelligence and Data Analytics (AIDA) can be found in the 4 in Appendix II.

Fast-track Integrated Bachelor's and Master's Degree Programme (only applicable to students 5 opting BEng (Hons) in EE as their Major)

The fast-track programmes offer a pathway for high-achieving and ambitious students to 6 complete both undergraduate and taught postgraduate studies at an accelerated pace. Students can enrol in the programme either in Year 1 or Year 3, depending on their academic standing.

(i) Eligible entrants will receive an offer of admission to the undergraduate programme, as 7 well as a conditional offer to the taught postgraduate programme. Upon successful completion of both the undergraduate and taught postgraduate degrees, students will be awarded two separate degrees: a Bachelor's degree and a Master's degree.

(ii) As part of the Fast-track Programme, students will take taught postgraduate courses that comprise no more than 30% of the taught postgraduate curriculum (9 credit units), which can be taken as Majors or Free electives in the undergraduate curriculum.

(iii) Students are required to maintain a cumulative GPA of 3.30 at the end of Semester Two to stay on the Fast-track Programme.

1.9 Summer Training / Industrial Placement 1

Summer Training at the Industrial Centre (IC) and practical work experience in industry are the vital components to meet the programme outcomes. The training/industrial placement is credit-bearing and compulsory in the programme, constituting the Work-Integrated Education (WIE) activities as stipulated by the University. Details of the required credits, structure and assessment of the WIE and IC training are given in Sections 5.7 and 5.8. 2

1.10 Student Exchange Programme 3

Student exchange to overseas universities for a semester or an academic year is possible through various exchange schemes organised by the University, Faculty or Department. Students are encouraged to participate so as to enhance their learning experience. 4

Credit transfer may be given to exchange-out students. However, in order to ensure attaining pre-requisite knowledge for smooth integration of study, students should seek approval on their study plan and credit transferability from the programme offering Department before leaving for the exchange. 5

1.11 Summer Term Teaching 6

Usually, there will be no summer term teaching on engineering subjects. Industrial Centre training and external training will take place during the summers. 7

1.12 Daytime and Evening Teaching 8

Subjects will be offered predominantly during the daytime. Some subjects, particularly the advanced elective subjects, may be available only in the evenings or on Saturdays. 9

1.13 Medium of Instruction 10

English is the medium of instruction (the only exceptions are for a small number of programmes/subjects which have received special approval to be taught and examined in Chinese due to the nature and objectives of the programmes/subjects concerned). 11

In the presence of non-Cantonese-speaking students, English should be used all the time. 12

2 Bachelor of Engineering (Honours) Scheme in Electrical Engineering [1]

2.1 Background and Rationale [2]

The University has introduced a comprehensive range of admission schemes to enhance its competitiveness in attracting high-quality students and to provide greater flexibility in academic choices. These include the Bachelor's Degree Scheme at faculty level, the Departmental Scheme at departmental level, and individual programmes that admit students directly into specific majors. The Department of Electrical and Electronic Engineering, the former Department of Electrical Engineering, is one of the premier departments of electrical engineering in Asia. It is the only academic department in Hong Kong which specializes in heavy current electrical engineering. We have a team of dedicated and renowned academic staff who are active in all facets of university life: teaching, research, and professional outreach. [3]

The Bachelor of Engineering (Honours) Scheme in Electrical Engineering consists of the following degrees. It aims to provide students the flexibility to decide on the final degree in their study. [4]

Bachelor of Engineering (Honours) in Electrical Engineering (BEng EE) [5]

The Bachelor of Engineering (Honours) in Electrical Engineering is a major electrical engineering degree programme in Hong Kong. It addresses the manpower demand of the electrical engineering profession, with particular emphasis on power systems, energy utilisation and related disciplines. This programme complies with the new university curriculum framework, which features a broad-based curriculum, emphasising on fundamentals, provision of opportunities for multidisciplinary studies, freshman experience, enhanced communication skills, work-integrated education, capstone project, and outcome-based education. At the same time, the programme addresses the societal need for a new generation of competent electrical engineers who can practise in their profession in Hong Kong, Mainland China, and the neighbouring regions. [6]

Bachelor of Engineering (Honours) in Transportation Systems Engineering (BEng TSE) [7]

Given the huge number of forthcoming transportation projects in Hong Kong and its neighbouring regions in the coming decades, there is an ever growing demand on the transportation engineering professionals. The Bachelor of Engineering (Honours) in Transportation Systems Engineering, being currently the only engineering degree programme in the transportation systems area in Hong Kong, addresses the coming huge manpower demand of the transportation systems engineering profession, with particular emphasis on railways, highways and planning of transportation systems and related disciplines. This programme complies with the new university curriculum framework, which features a broad-based curriculum, emphasising on fundamentals, provision of opportunities for multidisciplinary studies, freshman experience, enhanced communication skills, work-integrated education, capstone project, and outcome-based education. At the same time, the programme addresses the societal need for a competent transportation systems engineer who can practise in their profession in Hong Kong, the Mainland China, and the neighbouring regions. This undergraduate programme on Transportation Systems Engineering is developed to fill the gap of the imminent need of professionals in Hong Kong's transportation industry by the unique combinations of the expertise in the Department and other related areas of Engineering. The programme is designed to make full use of the hugely versatile applications of electrical engineering further broadening the career opportunities of our students. [8]

2.2 Relationship of Programme Objectives to University Missions 1

The University has the following missions: 2

1. To nurture socially responsible professionals and leaders with a strong sense of national pride and a global perspective. 3

2. To pursue world-leading research and innovation for societal benefits.

3. To foster a University community in which all members are united with a strong sense of belonging and pride, empowering the University to scale new heights.

The following table illustrates the relationship between Programme Objectives of BEng (Hons) in Electrical Engineering (see Section 3.2 below) and BEng (Hons) in Transportation Systems Engineering (see Section 4.2 below) and University Missions: 4

5

Programme Objectives	University Missions		
	1	2	3
(i)	√	√	√
(ii)		√	√
(iii)	√		√

2.3 Institutional Learning Outcomes 6

PolyU is committed to cultivate next-generation talents for a sustainable future, who are: 7

- Socially responsible leaders with a strong sense of national pride and a global outlook 8
- Future-ready professionals who possess technical acumen
- Critical thinkers and creative problem solvers
- Effective communicators and collaborators
- Adaptable and resilient lifelong learners

The institutional learning outcomes for these attributes are provided as follows: 9

1. **Socially responsible leaders with a strong sense of national pride and a global outlook:** Care about and understand local, national and global issues, and be able to think globally, act responsibly, and lead with integrity and pride for the benefit of society and a sustainable future. 10

2. **Future-ready professionals who possess technical acumen:** Be able to integrate and apply in-depth discipline knowledge and specialised skills, leverage changing and emerging technologies for work, function in variable interdisciplinary contexts, and demonstrate professionalism and entrepreneurial spirit at work.

3. **Critical thinkers and creative problem solvers:** Be able to critically evaluate information and arguments, draw logical and informed conclusions, identify problems and formulate innovative solutions, in both professional and everyday contexts.

4. **Effective communicators and collaborators:** Be able to communicate effectively in English and Chinese in professional and everyday contexts*, collaborate with people from diverse backgrounds and different perspectives, and contribute to effective teamwork and positive group dynamics. 1

5. **Adaptable and resilient lifelong learners:** Committed to continual learning and self-improvement, engage in learning with a sense of purpose, manage their own learning, adapt to different learning situations, and deal effectively with the arising stress and challenges. 2

* The expectation to communicate in Chinese does not apply to foreign students. 3

3 Bachelor of Engineering (Honours) in Electrical Engineering 1

3.1 Programme Aims and Rationale 2

The programme aims to provide the students with a sound education in electrical engineering and furnish an opportunity for detailed study in a choice of related specialist areas. The programme is designed to nurture electrical engineers who will be able to practise their profession worldwide while being particularly competent to do so in the context of Hong Kong and Mainland China. 3

Modern engineers are often required to undertake different activities and may face promotion or placement in the course of their career development. The programme thus aims to prepare graduates for their entire working life rather than only for their first jobs. Emphasis is therefore placed on the understanding of fundamental concepts and theories which will always be applicable and valid. The teaching of technologies or modern tools which may have a shorter duration of applicability cannot be neglected either, but it is important not to emphasise training at the expense of education. 4

More and more industrial employers wish to recruit engineers who have a broad-based education as well as adequate professional knowledge to undertake detailed technical work in design and production. Therefore, the programme is also designed to provide training to our students who could develop a thorough understanding of electrical engineering, and acquire a broad and general appreciation of activities in other related disciplines. The students are guided to learn the interfaces between specialist engineering areas and be prepared to work in a multidisciplinary work environment which usually involves colleagues from other engineering backgrounds. 5

Students should aware that ‘a good engineering solution’ is one which has to fulfil economic, financial, and social criteria as well as to comply with engineering design specifications. This necessitates the inclusion of the study of economics, accounting and management with particular reference to engineering activities, as well as the inter-relations between engineering activities and society as a whole. 6

Language competence of students is strengthened through the English and Chinese subjects stipulated in the General University Requirements (GUR), and is further enhanced by Major subjects. The teaching approach adopted in the curriculum, which involves lectures, seminars, discussions, in-class feedback, assessed presentations, demonstration of project work and written laboratory reports, aims to improve students’ verbal and written communication skills. 7

It is important to train and educate our students not only in cognitive ability in technical areas but also lifelong skills. Hence, students are exposed to situations where they can: 8

(i) develop their intellectual abilities (creative thinking, critical/independent judgement making, ability to analyse and synthesize, and to cope with real-life conditions such as indeterminacy, lack of information and time pressure); and 9

(ii) develop their social abilities (ethics, personal and public relations, team work, responsibility/authority, etc.).

In this undergraduate programme, the fundamentals of science and engineering are taught in Year 1 and Year 2. Core subjects are covered in Year 3 while advanced ones are in Year 4. Students are provided with training at the Industrial Centre (IC) so that they learn the applications of engineering technologies. They are also required to undertake industrial placement during the summer at the end of the third year of study, which gives them exposure to the real industrial working environment. 10

3.2 Programme Objectives 1

(i) To provide students with a broad base of knowledge in the fundamentals of electrical engineering and its current applications. 2

(ii) To prepare students for working life including the skills needed for lifelong learning.

(iii) To produce engineers with the understanding of their obligations to society.

3.3 Programme Outcomes 3

Programme outcomes refer to the intellectual abilities, knowledge, skills and attributes that a graduate from this programme should possess. To attain the aim of developing all-round students, the programme outcome statements are encompassed in the following learning outcomes. 4

Upon successful completion of the programme, students will be able to: 5

1. Apply fundamental principles of mathematics, science and engineering to identify, formulate and solve practical problems in electrical engineering and related fields. 6
2. Design and conduct experiments using appropriate techniques and tools, and interpret and analyse the data.
3. Design systems, components, and processes to meet given specifications and requirements.
4. Identify technical and non-technical constraints that may affect engineering problems, systems, or projects, and develop alternative perspectives or solutions.
5. Stay up-to-date with modern engineering and IT tools, and engage in continuing professional development and lifelong learning.
6. Understand and appreciate ethical, professional and social issues and responsibilities.
7. Communicate effectively.
8. Consider contemporary issues and understand the impact of engineering solutions in national, global and societal contexts.
9. Collaborate effectively in multi-disciplinary teams and demonstrate professional interpersonal skills.

The Programme Outcomes are in line with the Programme Objectives and the mapping is shown in Table 3.3.1. 7

Programme Outcomes	Programme Objectives		
	(i)	(ii)	(iii)
1	√		
2	√		
3	√		
4	√	√	
5		√	
6		√	√
7	√		
8	√		
9		√	√

8

Table 3.3.1 Mapping between Programme Objectives and Programme Outcomes 9

The Subject Learning Outcomes are designed to be in alignment with the Programme Outcomes. The Subject Learning Outcomes are given in each subject and they can be found in the Subject Description Form (SDF) in Appendix I. 1

Relationship between Institutional Learning Outcomes and Intended Learning Outcomes (ILO) of the programme is shown in Table 3.3.2. 2

Programme Outcomes	Institutional Learning Outcomes				
	1	2	3	4	5
1		√	√		
2			√		
3		√			
4			√		
5		√			√
6	√	√			
7				√	
8	√				
9	√			√	

3

Table 3.3.2 Relationship between Institutional Learning Outcomes and Intended Learning Outcomes (ILO) of the programme 4

4 Bachelor of Engineering (Honours) in Transportation Systems Engineering 1

4.1 Programme Aims and Rationale 2

In the programme, the students are to acquire a solid understanding of the fundamentals in electrical engineering and apply their knowledge and techniques on the relevant areas in transportation. The philosophy of the programme focuses on incorporating the appropriate engineering knowledge into transportation systems in order to enhance the efficiency, reliability, safety and sustainability of the system infrastructure and services. The current practices in transportation industries, the latest technologies in transportation systems; and hence their integration to provide engineering solutions for practical problems constitutes the main contents of this programme. 3

Education is important to equip students with knowledge and skills for developing their long-term careers. Emphasis is, therefore, placed on the understanding of fundamental concepts which will always be applicable and valid. Particular techniques which may have a shorter duration of applicability, however, cannot be neglected. Applications change rapidly as technology evolves but the underlying theories remain. 4

Transportation always involves multi-disciplinary knowledge and techniques. The students are guided to learn the interfaces between specialist engineering areas and be prepared to work in a multidisciplinary work environment which usually involves colleagues from other engineering backgrounds. On the other hand, the students should aware that 'a good engineering solution' is one which fulfils economic and financial criteria as well as the engineering design specifications. This necessitates the inclusion of the study of finance, accounting, management and ethical and social responsibilities with particular reference to transportation systems engineering activities, as well as the inter-relations between such activities and the society as a whole. 5

Language competence of students is strengthened through the English and Chinese subjects stipulated in the General University Requirements (GUR), and is further enhanced by Major subjects. The teaching approach adopted in the curriculum, which involves lectures, seminars, discussions, in-class feedback, assessed presentations, demonstration of project work and written laboratory reports, aims to improve students' verbal and written communication skills. 6

It is important to train and educate our students not only in cognitive ability in technical areas but also lifelong skills. Hence, students are exposed to situations where they can: 7

(i) develop their intellectual abilities (creative thinking, critical/independent judgement making, ability to analyse and synthesize, and to cope with real-life conditions such as indeterminacy, lack of information and time pressure); and 8

(ii) develop their social abilities (ethics, personal and public relations, team work, responsibility/authority, etc.).

In this undergraduate programme, the fundamentals of science and engineering are taught in Year 1 and Year 2. Core subjects are covered in Year 3 while advanced ones are in Year 4. Students are provided with training at the Industrial Centre (IC) so that they learn the applications of engineering technologies. They are also required to undertake industrial placement during the summer at the end of the third year of study, which gives them exposure to the real industrial working environment. 9

4.2 Programme Objectives

(i) To provide students with a broad knowledge base of the fundamentals of transportation systems engineering and its current applications.

(ii) To prepare students for the professional development which requires problem-solving techniques, engineering judgements and lifelong learning.

(iii) To produce engineers with appreciation of their obligations to society in the local and international context.

4.3 Programme Outcomes

Programme outcomes refer to the intellectual abilities, knowledge, skills and attributes that a graduate from this programme should possess. To attain the aim of developing all-round students, the programme outcome statements are encompassed in the following two categories of learning outcomes.

Upon successful completion of the programme, students will be able to:

1. Apply fundamental principles of mathematics, science and engineering to identify, formulate and solve practical problems in transportation systems engineering and related fields.
2. Design and conduct experiments using appropriate techniques and tools, and interpret and analyse the data.
3. Design systems, components, and processes to meet given specifications and requirements.
4. Identify technical and non-technical constraints that may affect engineering problems, systems, or projects, and develop alternative perspectives or solutions.
5. Stay up-to-date with modern engineering and IT tools, and engage in continuing professional development and lifelong learning.
6. Understand and appreciate ethical, professional and social issues and responsibilities.
7. Communicate effectively.
8. Consider contemporary issues and understand the impact of engineering solutions in national, global and societal contexts.
9. Collaborate effectively in multi-disciplinary teams and demonstrate professional interpersonal skills.

The Programme Outcomes are in line with the Programme Objectives and the mapping is shown in Table 4.3.1. 1

Programme Outcomes	Programme Objectives		
	(i)	(ii)	(iii)
1	√		
2	√		
3	√		
4	√	√	
5		√	
6		√	√
7	√		
8	√		
9		√	√

2

Table 4.3.1 Mapping between Programme Objectives and Programme Outcomes 5

The Subject Learning Outcomes are designed to be in alignment with the Programme Outcomes. The Subject Learning Outcomes are given in each subject and they can be found in the Subject Description Form (SDF) in Appendix I. 3

Relationship between Institutional Learning Outcomes and Intended Learning Outcomes (ILO) of the programme is shown in Table 4.3.2. 4

Programme Outcomes	Institutional Learning Outcomes				
	1	2	3	4	5
1		√	√		
2			√		
3		√			
4			√		
5		√			√
6	√	√			
7				√	
8	√				
9	√			√	

6

Table 4.3.2 Relationship between Institutional Learning Outcomes and Intended Learning Outcomes (ILO) of the programme 7

5 Curriculum [1]

5.1 Summary of University Graduation Requirements [2]

To be eligible for a Bachelor's Degree award under the 4-year full-time undergraduate curriculum, a student must: [3]

(i) Successfully complete a minimum of 120 academic credits (60 to 71 academic credits for Senior Year Intake) and 11 training credits*; [4]

(ii) Earn a cumulative GPA of 1.70 or above at graduation;

(iii) Successfully complete the mandatory Work-Integrated Education (WIE) component;

(iv) Satisfy the following General University Requirements (GUR):

Normal Year 1 Intake [5]

(a) Language and Communication Requirements[1]	9 credits
(b) Artificial Intelligence and Data Analytics Requirement	2 credits
(c) Innovation and Entrepreneurship Requirement	1 credit
(c) Leadership Education and Development	3 credits
(d) Service-Learning	3 credits
(e) Cluster Areas Requirement (CAR) [3 credits each from CAR (A), CAR (M) and CAR (N)]	9 credits
(g) Healthy Lifestyle	Non-credit bearing
Total	***27 credits***

[6]

Senior Year Intake [7]

(a) Language and Communication Requirements[1]	Normally not required[2]
(b) Service-Learning	3 credits
(c) Cluster Areas Requirement (CAR) [3 credits each from CAR(A)[3] and CAR(M)]	6 credits
(d) Essential Components of General Education	Non-credit bearing
Total	***9 credits***

[8]

(v) Satisfy the residential requirement for at least one-third of the credits to be completed for the award; and [9]

(vi) Satisfy all requirements as defined and/or stipulated in the Programme Requirement Document and as specified by the University.

* Please see Section 5.3 for the Specific Graduation Requirements.

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1 Non-Chinese speakers and those students whose Chinese standards are at junior secondary level or below will by default be exempted from the CAR - Chinese Reading and Writing Requirements and DSR – Chinese (for Senior Year intake students). However, students whose Chinese standards are at junior secondary level or below will still be required to take one Chinese LCR subject to fulfil their Chinese LCR.

2 This is normally not required. Only those students not meeting the equivalent standard of the Undergraduate Degree LCR (based on their previous studies in AD/HD programmes and their academic performance) will be required to take degree LCR subjects on top of the normal curriculum requirement.

3 Students are required to take a specially designed CAR(A) – English Language Subject with embedded English Reading and Writing Requirements.

There are subjects which are designed to fulfil the credit requirement of different types of subjects. Students passing these subjects will be regarded as having fulfilled the credit requirements of the particular types of subjects concerned. Nevertheless, the subject passed will only be counted once in fulfilling the credit requirements of the award, and the students will be required to take another subject in order to meet the total credit requirement of the programme concerned. 1

Level-0 subjects and training subjects (including clinical/field training) will not be counted to fulfill free elective requirement for graduation purpose. 2

Senior Year intakes admitted to the 4-year Undergraduate Degree programmes on the strength of the Associate Degree/Higher Diploma qualifications are required to complete at least 60 credits in order to be eligible for a Bachelor's degree. Exemption may be given for subjects already taken in the previous Associate Degree/Higher Diploma studies. In that case, students should take other electives (including free electives) instead to make up the total of 60 credits required. 3

A student is required to graduate as soon as he/she satisfies the graduation requirements as stipulated above. The student concerned is required to apply for graduation, in the semester in which he/she is able to fulfil all his/her graduation requirements, and after the add/drop period for that semester has ended. 4

Students taking the Major/Minor option 5

Students taking the Major/Minor option will be considered for an award when they have satisfied the requirements for both the Major and Minor studies (i.e., having a GPA of 1.70 or above) and have also submitted an application for graduation. If the 18 credits taken for the approved Minor study can meet the requirements for that Minor, the Major students may apply to graduate with a specific Minor, in addition to their Major. Otherwise, students will graduate with a Major only. 6

Subject to the approval by the Minor-offering Department, students may count up to 6 credits from their Major/GUR [including Language Communication Requirements (LCR) subjects at proficiency level] towards their chosen Minor. Nevertheless, students must take at least 6 credits from their chosen Minor programme in order to satisfy the residential requirement of their chosen Minor. In addition, to be eligible for the Major and Minor awards, the total number of credits taken by the students for their Major-Minor studies must not be lower than the credit requirement of the single discipline Major programme. 7

Students taking the Major/Secondary Major option 8

Students may count up to 12 credits of their Major/GUR subjects towards the Secondary Major. Nevertheless, students must take at least 12 credits from their chosen Secondary Major in order to satisfy the residential requirement of the chosen Secondary Major. Students who have completed more than 12 credits of subjects that are eligible for double counting will need to apply for graduation and indicate the subjects intended for double counting. Notwithstanding the above, students must meet the minimum credit requirements of the "X + Secondary Major" concerned, i.e., 132 credits. 9

5.2 General University Requirements (GUR) 1

(i) Language and Communication Requirements (LCR) 2

English 3

All undergraduate students must successfully complete two* 3-credit English language subjects as stipulated by the University, according to their English language proficiency level (Table 5.2.1). These subjects are designed to suit students' different levels of English language proficiency at entry, as determined by their HKDSE score or the English Language Centre (ELC) entry assessment (when no HKDSE score is available, e.g., in the case of non-local students). 4

English language competence level	Practical English for University Studies (ELC1011)	English for University Studies (ELC1013)	Any LCR Proficient level elective subject in English (Table 5.2.2)
HKDSE Level 4 and above or equivalent	-	Subject 1	Subject 2
HKDSE Level 3 or equivalent	Subject 1	Subject 2	-

5

Table 5.2.1 English LCR Subjects (3 credits each) 6

LCR Proficient level elective subjects	Advanced English Reading and Writing Skills (ELC2011)
	Persuasive Communication (ELC2012)
	English in Literature and Film (ELC2013)
	Advanced English for University Studies (ELC2014)

7

Table 5.2.2 Proficient level elective subjects for HKDSE Level 4 students and above (or equivalent) (3 credits each) 8

* Students entering the University with specified attainment grades in certain public examinations can be given credit transfer or exemption for one or both LCR English subjects. For the subject exempted, students must take any other subject to make up the 3 credits. For the subject granted credit transfer, student do not need to take any other subject to make up the credits. 9

Chinese 10

All undergraduate students must successfully complete one* 3-credit Chinese language subject as stipulated by the University, according to their Chinese language proficiency level (Table 5.2.3). 11

Cantonese will be used as the Medium of Instruction (MoI) of a certain proportion of Chinese LCR subject. Students taking the Cantonese version of the subjects will be offered a 39 hour non-credit bearing e-Learning course in Putonghua (optional). 12

Subject Code	Subject Title	MoI
CLC1104C	University Chinese	Cantonese
CLC1104P	University Chinese	Putonghua

Table 5.2.3 Chinese LCR Subjects (3 credits each)

* Students entering the University with specified attainment grades in certain public examinations can be given credit transfer or exemption for the LCR Chinese subjects. For the subject exempted, students must take any other subject to make up the 3 credits. For the subject granted credit transfer, student do not need to take any other subject to make up the credits.

For non-Chinese speaking students or students whose Chinese standards are at junior secondary level or below:

Students of non-native Chinese language background, fulfilling any one of the following criteria with appropriate supporting certificate/document (if applicable), could be exempted from the Chinese LCR at the time of admission. You may use a Chinese LCR subject or free elective to fulfil the credit requirement. You are also exempted from fulfilling the CAR - Chinese Reading and Writing Requirements.

(i) those with their first/native language as non-Chinese stated on the grade report of recognized tests (e.g. IELTS, TOEFL, etc.); OR

(ii) those admitted with international qualifications without taking any Chinese subject(s) in their secondary/ high school; OR

(iii) those taken Chinese B or Chinese AB(SL) in IB Diploma; OR

(iv) NCS status shown on the official proof provided by their secondary school.

Otherwise, one subject from Table 5.2.4 below will be pre-assigned to you as Chinese LCR depending on your Chinese language proficiency and/or previous exam results. You might be given an assessment to ascertain that the pre-assigned subject is suitable for you.

Subject Code	Subject Title
CLC1151	Chinese I (for non-Chinese speaking students)
CLC1152	Chinese II (for non-Chinese speaking students)
CLC2151	Chinese III (for non-Chinese speaking students)
CLC2154	Chinese IV (for non-Chinese speaking students)
CLC2152	Chinese Literature – Linguistic and Cultural Perspectives (for non-Chinese speaking students)

Table 5.2.4 Chinese LCR Subjects for non-Chinese speakers or students whose Chinese standards are at junior secondary level or below (3 credits each)

For those Senior Year intake students who do not meet the equivalent standard of the Undergraduate Degree LCR (based on their previous studies in AD/HD programme and their academic performance) will be required to take degree LCR subjects on top of the normal curriculum requirement.

Writing Requirement 1

In addition to the LCR in English and Chinese explained above, all students must also, among the Cluster Areas Requirement (CAR) subjects they take (see Section (vi) below), pass one subject that includes the requirement for a substantial piece of writing in English and one subject with the requirement for a substantial piece of writing in Chinese. 2

Reading Requirement 3

All students must, among the CAR subjects they take, pass one subject that includes the requirement for the reading of an extensive text in English and one subject with the requirement for the reading of an extensive text in Chinese. 4

A list of approved CAR subjects for meeting the Writing Requirement and the Reading Requirement is shown at: https://www.polyu.edu.hk/cus/GURSubjects/ 5

Non-Chinese speakers and those students whose Chinese standards are at junior secondary level or below will by default be exempted from the CAR - Chinese Reading and Writing Requirements and the DSR – Chinese (for Senior Year intake students). 6

Note: In addition to the LCR and Reading and Writing Requirements, students also have to complete 2 - 4 credits of discipline-specific language requirements (2 credits in English and 0 - 2 credits in Chinese) as specified in the curriculum requirements of their Major. Students who are non-Chinese speakers or those whose Chinese standards are at junior secondary level or below will be exempted from the DSR - Chinese. Students of this category can take a replacement subject of any level to make up for the credit requirement 7

(ii) Artificial Intelligence and Data Analytics Requirement (GUR-AIDA) 8

All 4-year degree students must successfully complete one 2-credit subject in the area of Artificial Intelligence and Data Analytics, which is designed to (i) demonstrate an understanding of the foundational concepts of Artificial Intelligence and Data Analytics (AIDA); (ii) acquire basic skills in using AIDA technologies and applications; (iii) articulate examples of how the adoption AIDA could enhance their chosen disciplines; and (iv) demonstrate an awareness of global contemporary ethical issues and impact from AIDA applications in daily life. 9

Senior Year Intakes students are required to take the mandatory subject “Essential Components of General Education” for the e-module on GUR-AIDA. 10

(iii) Innovation and Entrepreneurship Requirement (GUR-IE) 11

All 4-year degree students must successfully complete one 1-credit subject in the area of Innovation and Entrepreneurship, which is designed to (i) demonstrate an elementary understanding of innovation and entrepreneurship; (ii) appreciate the importance of innovation and entrepreneurship in local and global community; (iii) appreciate the applications and implications of the latest technologies on entrepreneurship and innovation in their chosen disciplines; and (iv) identify ethical issues in entrepreneurship and innovation. 12

Senior Year Intakes students are required to take the mandatory subject “Essential Components of General Education” for the e-module on GUR-IE. 13

(iv) Leadership Education and Development (LEAD) 1

All 4-year degree students must successfully complete one 3-credit subject in the area of Leadership Education and Development, which is designed to enable students to (i) understand and integrate theories, research, and concepts on the basic qualities (particularly intrapersonal and interpersonal qualities including law abidance) of effective leaders, (ii) develop self-awareness and self-understanding, (iii) demonstrate self-leadership in pursuit of continual self-improvement, (iv) apply intrapersonal and interpersonal skills in daily lives, (v) appreciate the importance of intrapersonal and interpersonal qualities in effective leadership, particularly the connection of learning in the subject to one's professional development and personal growth, and (vi) recognise and accept their social responsibility as professionals and citizens to the society and the world. 2

Senior Year Intakes students are not required to complete this subject. 3

(v) Service-Learning (SL) 4

All students must successfully complete one 3-credit subject designated to meet the Service-Learning Requirement, in which they are required to (a) participate in substantial community service or civic engagement activities that will benefit the service users or the community at large in a meaningful way, (b) apply the knowledge and skills acquired from their Major or other learning experiences at the University to the community service activities, and (c) reflect on their service learning experience in order to link theory with practice for the development of a stronger sense of ethical, social and national responsibility. 5

Service-Learning subjects are administered by the Service-Learning and Leadership Office (SLLO). For subject offering and further information, please visit the SLLO website: https://www.polyu.edu.hk/sllo/. 6

(vi) Cluster Areas Requirements (CAR) 7

To expand students' intellectual capacity beyond their disciplinary domain and to enable them to tackle professional and global issues from a multidisciplinary perspective, all 4-year degree students are required to successfully complete at least one 3-credit subject in each of the following three Cluster Areas and among which students have to fulfil the Reading and Writing Requirements in Chinese and English (CR/CW and ER/EW): 8

- CAR (A): Human Nature, Relations and Development 9
- CAR (M): Chinese History and Culture
- CAR (N): Cultures, Organisations, Societies and Globalisation

Senior Year Intakes are required to complete one specially-designed CAR (A) - English Language subject (with embedded English Reading and Writing Requirements) within the first year of study and one CAR (M) subject, and fulfil the Reading and Writing Requirements in Chinese. 10

A list of CAR subjects under each of the four Cluster Areas is available at: https://www.polyu.edu.hk/cus/GURSubjects/. 11

(vii) Healthy Lifestyle (HLS) 1

A Healthy lifestyle is the platform for all-round development. All 4-year degree students are required to successfully complete a non-credit-bearing programme on healthy lifestyle. Students are required to complete the following components: (a) sports training/participation, (b) e-learning modules, and (c) lectures/talks. The syllabus covers physical health, mental health, social health, spiritual health, values and priorities on healthy behaviour with reference to competing priorities in life, reflections on healthy living, and plans for self-improvement or maintaining of health behaviour. Details of the programme can found at: https://www.polyu.edu.hk/cus/GURSubjects/HLS.php. 2

Senior Year Intakes students are not required to complete HLS. 3

(viii) Essential Components of General Education 4

To allow Senior Year intakes students to acquire the basic knowledge of the following: 5

- Academic Integrity (OTAI) 6
- Artificial Intelligence and Data Analytics (AIDA)
- Innovation and Entrepreneurship (IE)
- National Education (NE)

All Senior Year Intakes students are required to take "Essential Components of General Education", and complete and pass the individual e-modules of the four components within the first year of study (Semesters 1 and 2). The "Online Tutorial on Academic Integrity" should be completed by Week 5 of Semester 1. 4-year degree students are not required to complete this subject. 7

5.3 Specific Graduation Requirements 1

BEng (Hons) in Electrical Engineering 2

Normal Year 1 Intake 3

(i) Successfully complete a minimum of 120 academic credits composed of the following: 4

- 27 credits of General University Requirements (GUR) as set out in Section 5.2 5
- 87 credits of Major Subjects, of which 75 credits from subjects categorised as Compulsory (COM) and 12 credits from subjects categorised as Elective (ELE) as stated in Table 5.4.2.
- 6 credits of Free Electives

(ii) Obtain a total of 11 training credits in Training (TRN) and complete the Work-Integrated Education (WIE) component as stated in Sections 5.8 and 5.9, respectively. 6

Senior Year Intake 7

(i) Successfully complete a minimum of 60 academic credits composed of the following: 8

- 9 credits of General University Requirements (GUR) as set out in Section 5.2 9
- 51 credits of Major Subjects, of which 39 credits from subjects categorised as Compulsory (COM) and 12 credits from subjects categorised as Elective (ELE) as stated in Table 5.4.2.

(ii) Obtain a total of 11 training credits in Training (TRN) and complete the Work-Integrated Education (WIE) component as stated in Sections 5.8 and 5.9, respectively. 10

BEng (Hons) in Transportation Systems Engineering 11

Normal Year 1 Intake 12

(i) Successfully complete a minimum of 120 academic credits composed of the following: 13

- 27 credits of General University Requirements (GUR) as set out in Section 5.2 14
- 87 credits of Major Subjects, of which 81 credits from subjects categorised as Compulsory (COM) and 6 credits from subjects categorised as Elective (ELE) as stated in Table 5.4.3.
- 6 credits of Free Electives

(ii) Obtain a total of 11 training credits in Training (TRN) and complete the Work-Integrated Education (WIE) component as stated in Sections 5.8 and 5.9, respectively. 15

Senior Year Intake 16

(i) Successfully complete a minimum of 71 academic credits composed of the following: 17

- 9 credits of General University Requirements (GUR) as set out in Section 5.2 18
- 62 credits of Major Subjects, of which 59 credits from subjects categorised as Compulsory (COM) and 3 credits from subjects categorised as Elective (ELE) as stated in Table 5.4.3.

(ii) Obtain a total of 11 training credits in Training (TRN) and complete the Work-Integrated Education (WIE) component as stated in Sections 5.8 and 5.9, respectively. 19

5.4 Programme Specified Subjects 1

Students admitted to the Scheme through the Normal Year 1 entry route are required to complete a minimum of 120 academic credits and 11 training credits to satisfy the degree requirements, while students admitted to the programme through Senior Year entry route are required to complete a minimum of 60/71 academic credits and 11 training credits to satisfy the degree requirements. The exact minimum number of academic credits required will depend on the academic background of the students. Furthermore, students are required to fulfil the Work-Integrated Education (WIE) component. The details of General University Requirements (GUR), Free Electives and Major Subjects are listed in Tables 5.4.1 – 5.4.3. 2

General University Requirements (GUR) & Free Electives for BEng (Hons) Scheme in Electrical Engineering 3

Subject Code	Subject Title	Credit	Category#	
			Normal Year 1 Intake	Senior Year Intake
General University Requirements (GUR)				
-	Cluster Area Requirement: CAR (A)	3	COM	COM^
-	Cluster Area Requirement: CAR (M)	3	COM	COM
-	Cluster Area Requirement: CAR (N)	3	COM	-
-	Language and Communication Requirement I (LCR English I)	3	COM	*
-	Language and Communication Requirement II (LCR English II)	3	COM	*
-	Language and Communication Requirement III (LCR Chinese)	3	COM	*
EIE1005	Fundamental AI and Data Analytics (GUR-AIDA)	2	COM	-
MM1031	Introduction to Innovation and Entrepreneurship (GUR-IE)	1	COM	-
APSS1L01	Tomorrow's Leaders (LEAD)	3	COM	-
-	Service-Learning	3	COM	COM
-	Healthy Lifestyle	0	COM	-
EEE1Q01	Essential Components of General Education	0	-	COM
Free Electives				
-	Free Elective 1	3	COM	-
-	Free Elective 2	3	COM	-

4

Table 5.4.1 General University Requirements (GUR) & Free Electives 5

Category: COM: Compulsory 6

^ Senior Year Intakes are required to complete one specially-designed CAR (A) - English Language subject (with embedded English Reading and Writing Requirements).

* This is normally not required. Only those students not meeting the equivalent standard of the Undergraduate Degree LCR (based on their previous studies in AD/HD programmes and their academic performance) will be required to take degree LCR subjects on top of the normal curriculum requirement.

Major Subjects for BEng (Hons) in Electrical Engineering (BEng in EE) 1

Subject Code	Subject Title	Credit	Category#	
			Normal Year 1 Intake	Senior Year Intake
Major Subjects for BEng in EE				
AF3625	Engineering Economics	3	-	COM
AMA1110	Basic Mathematics I – Calculus and Probability & Statistics	3	COM	@
AMA1120	Basic Mathematics II – Calculus and Linear Algebra	3	COM	@
AMA2111	Mathematics I	3	COM	@
AMA2112	Mathematics II	3	COM	@
AP10005	Physics I	3	COM	@
AP10006	Physics II	3	COM	@
CLC3241P	Professional Communication in Chinese	2	-	COM
EEE1001	Industrial Placement Fundamentals	1	COM	-
EEE2001	Applied Electromagnetics	2	-	COM
EE2002	Circuit Analysis	3	COM	@
EE2003	Electronics	3	COM	@
EE2004	Electrical Energy Systems Fundamentals	3	COM	@
EE3001	Analogue and Digital Circuits	3	COM	COM
EE3002	Electromechanical Energy Conversion	3	COM	@
EE3003	Power Electronics and Drives	3	COM	@
EE3004	Power Transmission and Distribution	3	COM	COM
EE3005	Systems and Control	3	COM	COM
EE3006	Analysis Methods for Engineers	3	COM	COM
EE3007	Computer System Principles	3	COM	@
EE3008	Linear Systems and Signal Processing	3	COM	@
EE3009	Electrical Services in Buildings	3	COM	@
EE4006	Individual Project	6	COM	COM
EE4003	Electrical Machines	3	ELE (Select 2 Level 4 electives)	ELE (Select 2 Level 4 electives)
EE4004	Power Systems	3		
EE4007	Advanced Power Electronics	3		
EE4008	Applied Digital Control	3	ELE (Select 2 Advanced electives)	ELE (Select 2 Advanced electives)
EE4012	Intelligent Buildings	3		
EE4014	Intelligent Systems Applications in Electrical Engineering	3		
EE4024	Industrial Computer Applications	3		
EEE4002	Modern Electrified Railway Systems	3		
BSE463	Design of Mechanical Systems in Buildings	3		
CSE40462	Environmental Impact Assessment – Theory and Practice	3		
ENG4001	Project Management	3		
ISE404	Total Quality Management	3		
MM4522	China Business Management	3		
ELC3531	Professional Communication in English for Engineering Students	2	COM	COM
ENG1004	Engineering Professionals in Society I	1	COM	-
ENG2001	Fundamentals of Materials Science and Engineering	3	COM	COM
ENG2002	Computer Programming	3	COM	@
ENG2003	Information Technology	3	COM	COM
ENG3003	Engineering Management	3	-	COM
ENG3004	Society and The Engineer	3	-	COM
ENG3006	Engineering Professionals in Society II	2	COM	-

2

Subject Code	Subject Title	Credit	Category#	
			Normal Year 1 Intake	Senior Year Intake
EEE1101	Industrial Placement Fundamentals	1	-	TRN
EE2101	Engineering Communication and Fundamentals	4	-	TRN
EE2102	IC Training I (EE)	4	-	TRN
EEE3101	Industrial Placement	2	-	TRN/WIE
EEE3102	Industrial Placement	3	TRN/WIE	-
EEE2103	Applied Engineering Fundamentals	2	TRN	-
EEE2106	MATLAB for Engineers and Scientists	1	TRN	-
EEE2107	BIM Basic and Electrical System	1	TRN	-
EEE2108	Electrical Engineering Practice	4	TRN	-

Table 5.4.2 Major Subjects for BEng in EE

Category: COM: Compulsory
ELE: Elective
TRN: Training
WIE: Work-Integrated Education

@ The exact major subjects for senior year intake vary from student to student depending on the number of subjects approved for credit transfer.

Subject to the approval by the Programme Leader of BEng (Hons) in EE, students may take at most one Level 5 subject per semester as an advanced elective during their final year of study. The total number of Level 5 subjects taken shall not exceed 2. Students can refer to the list of Level 5 subjects currently available on https://www.polyu.edu.hk/eee/study/information-for-current-students/subject-syllabi/.

Subject Code	Subject Title	Credit	Category of Subjects
AF5107	Accounting for Engineers	3	ELE
CSE516	Urban Transport Planning - Theory and Practice	3	ELE
EE502	Modern Protection Methods	3	ELE
EE509	High Voltage Engineering	3	ELE
EE512	Electric Vehicles	3	ELE
EE520	Intelligent Motion Systems	3	ELE
EE521	Industrial Power Electronics	3	ELE
EE526	Power System Analysis and Dynamics	3	ELE
EE530	Electrical Energy Saving Systems	3	ELE
EE533	Railway Power Supply Systems	3	ELE
EE545	Modern Generation and Grid Integration Technologies	3	ELE
EE546	Electric Energy Storage and New Energy Sources for Electric Vehicles	3	ELE
EE548	Advanced Electric Vehicle technology	3	ELE
EE570	Design and Analysis of Smart Grids	3	ELE
EEE523	Economics and Markets in Power Systems & Electrified Transportation	3	ELE
EEE524	Green Technology and Policy in Electrical Engineering	3	ELE
EEE525	Smart Transportation for Green Cities	3	ELE

Major Subjects for BEng (Hons) in Transportation Systems Engineering (BEng in TSE) 1

Subject Code	Subject Title	Credit	Category#	
			Normal Year 1 Intake	Senior Year Intake
Major Subjects for BEng in TSE				
AF3625	Engineering Economics	3	-	COM
AMA1110	Basic Mathematics I – Calculus and Probability & Statistics	3	COM	@
AMA1120	Basic Mathematics II – Calculus and Linear Algebra	3	COM	@
AMA2111	Mathematics I	3	COM	@
AMA2112	Mathematics II	3	COM	@
AP10005	Physics I	3	COM	@
AP10006	Physics II	3	COM	@
CLC3241P	Professional Communication in Chinese	2	-	COM
CSE30292	Transportation Operations and Management	3	COM	COM
CSE30312	Transportation and Highway Engineering	3	COM	COM
CSE30390	Transportation Systems Analysis	3	COM	COM
CSE40408	Traffic Surveys and Transport Planning	3	COM	COM
CSE40490	Transport Management and Highway Maintenance	3	COM	COM
EEE1001	Industrial Placement Fundamentals	1	COM	-
EEE2001	Applied Electromagnetics	2	-	COM
EEE2003	Transportation Engineering Fundamentals	2	-	COM
EE2002	Circuit Analysis	3	COM	@
EE2003	Electronics	3	COM	@
EE2004	Electrical Energy Systems Fundamentals	3	COM	@
EE2029	Transportation Engineering Fundamentals	3	COM	@
EE3004	Power Transmission and Distribution	3	COM	COM
EE3012	Transport Operations Modelling	3	COM	COM
EE3013	Transportation Data Analytics	3	COM	COM
EE4006	Individual Project	6	COM	COM
EE4019	Intelligent Transportation Systems	3	COM	COM
EEE4001	Public Transportation Systems and Electrified Transportation	3	COM	COM
EE3002	Electromechanical Energy Conversion	3	ELE (Select 1 Level 3 elective)	-
EE3003	Power Electronics and Drives	3		-
EE3005	Systems and Control	3		-
EE3009	Electrical Services in Buildings	3		-
EIE3333	Data and Computer Communications	3		-
EE4004	Power Systems	3	ELE (Select 1 Advanced elective)	ELE (Select 1 Advanced elective)
EE4007	Advanced Power Electronics	3		
EE4008	Applied Digital Control	3		
EE4012	Intelligent Buildings	3		
EE4014	Intelligent Systems Applications in Electrical Engineering	3		
EE4024	Industrial Computer Applications	3		
EIE4104	Mobile Networking	3		
CSE40462	Environmental Impact Assessment – Theory and Practice	3		
CSE40475	Sustainable Development Strategy	3		
ENG4001	Project Management	3		
ELC3531	Professional Communication in English for Engineering Students	2	COM	COM
ENG1004	Engineering Professionals in Society I	1	COM	-
ENG2001	Fundamentals of Materials Science and Engineering	3	COM	COM
ENG2002	Computer Programming	3	COM	@
ENG2003	Information Technology	3	COM	COM
ENG3003	Engineering Management	3	-	COM
ENG3004	Society and The Engineer	3	-	COM
ENG3006	Engineering Professionals in Society II	2	COM	-

2

Subject Code	Subject Title	Credit	Category#	
			Normal Year 1 Intake	Senior Year Intake
EEE1101	Industrial Placement Fundamentals	1	-	TRN
EE2101	Engineering Communication and Fundamentals	4	-	TRN
EE2103	IC Training I (TSE)	4	-	TRN
EEE3101	Industrial Placement	2	-	TRN/WIE
EEE3102	Industrial Placement	3	TRN/WIE	-
EEE2103	Applied Engineering Fundamentals	2	TRN	-
EEE2106	MATLAB for Engineers and Scientists	1	TRN	-
EEE2107	BIM Basic and Electrical System	1	TRN	-
EEE2109	Transportation Systems Engineering Practices	4	TRN	-

1

Table 5.4.3 Major Subjects for BEng in TSE 9

Category: COM: Compulsory 2
ELE: Elective 3
TRN: Training 4
WIE: Work-Integrated Education 5

@ The exact major subjects for senior year intake vary from student to student depending on the number of subjects approved for credit transfer. 6

Subject to the approval by the Programme Leader of BEng (Hons) in TSE, students may take at most one Level 5 subject per semester as an advanced elective during their final year of study. The total number of Level 5 subjects taken shall not exceed 2. Students can refer to the list of Level 5 subjects currently available on https://www.polyu.edu.hk/eee/study/information-for-current-students/subject-syllabi/. 7 8

Subject Code	Subject Title	Credit	Category of Subjects
EE512	Electric Vehicles	3	ELE
EE533	Railway Power Supply Systems	3	ELE
EE535	Maintenance and Reliability Engineering	3	ELE
EE536	Signalling and Train Control Systems	3	ELE
EE537	Railway Vehicles	3	ELE
EE546	Electric Energy Storage and New Energy Sources for Electric Vehicles	3	ELE
EE548	Advanced Electric Vehicle technology	3	ELE
EEE523	Economics and Markets in Power Systems & Electrified Transportation	3	ELE
EEE524	Green Technology and Policy in Electrical Engineering	3	ELE
EEE525	Smart Transportation for Green Cities	3	ELE
CSE561	Public Transport: Operations and Service Planning	3	ELE
CSE562	Traffic Engineering and Control	3	ELE
LGT5013	Transport Logistics in China	3	ELE

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5.5 Progression Pattern for Normal Study Duration [1]

The progression pattern below is recommended for HKDSE admittees who have attained Level 3 or above in both English language and Chinese language, and who have attained Level 2 in Physics (or Combined Science with a component in Physics). [2]

BEng (Hons) in Electrical Engineering (Normal Year 1 Intake) [3]

Year 1 (31 academic credits + 2 training credits) [4]			
Semester 1 (16 credits + 1 training credit)		**Semester 2** (15 credits + 1 training credit)	
AMA1110	Basic Mathematics I – Calculus and Probability & Statistics (3)	ELCXXXX	English LCR Subject 2 (3)~
APSS1L01	Tomorrow's Leaders (3)	ENG2002	Computer Programming (3)
EIE1005	Fundamental AI and Data Analytics (2)	CAR I	Cluster-Area Requirement subject 1 (3)
ELCXXXX	English LCR Subject 1 (3)~	Free Elective 1 (3)	
ENG1004	Engineering Professionals in Society I (1)		
MM1031	Introduction to Innovation and Entrepreneurship (1)		
Two Faculty Electives^ should be taken in Year 1			
AP10006	Physics II (3) EE #	AMA1120	Basic Mathematics II – Calculus and Linear Algebra (3) EE
ENG2003	Information Technology (3)	AP10005	Physics I (3)
EEE2103 Applied Engineering Fundamentals (2 training credits)			
Healthy Lifestyle (non-credit bearing)			
Year 2 (31 academic credits + 6 training credits)			
Semester 1 (15 credits + 1 training credit)		**Semester 2** (16 credits + 1 training credit)	
AMA2111	Mathematics I (3)^^	AMA2112	Mathematics II (3)^^
CLC1104P	Chinese LCR Subject (3)%	EEE1001	Industrial Placement Fundamentals (1)
EE2002	Circuit Analysis (3)	EE2003	Electronics (3)
ENG2001	Fundamentals of Materials Science and Engineering (3)+	EE2004	Electrical Energy Systems Fundamentals (3)
		CAR II	Cluster-Area Requirement subject 2 (3)
At least Two of the following Major subjects^ should be taken in Year 2			
AMA1120	Basic Mathematics II – Calculus and Linear Algebra (3)	AP10006	Physics II (3)
AP10005	Physics I (3) EE	ENG2003	Information Technology (3) EE
EEE2106	MATLAB for Engineers and Scientists (1 training credit)	EEE2107	BIM Basic and Electrical System (1 training credit)
Semester 3: EEE2108 Electrical Engineering Practice (4 training credits)			
Year 3 (29 academic credits + 3 training credits)			
Semester 1 (15 credits)		**Semester 2** (14 credits)	
EE3001	Analogue and Digital Circuits (3)	EE3003	Power Electronics and Drives (3)
EE3002	Electromechanical Energy Conversion (3)	EE3004	Power Transmission and Distribution (3)
EE3005	Systems and Control (3)	EE3008	Linear Systems and Signal Processing (3)
EE3006	Analysis Methods for Engineers (3)	EE3009	Electrical Services in Buildings (3)
EE3007	Computer System Principles (3)	ELC3531	Professional Communication in English for Engineering Students (2)
Semester 3: EEE3102 Industrial Placement (3 training credits)			
Year 4 (29 academic credits)			
Semester 1 (15 credits)		**Semester 2** (14 credits)	
At least Two Level-4 electives should be taken		ENG3006	Engineering Professionals in Society II (2)
EE4003	Electrical Machines (3)*	Advanced Elective (EE) 2 (3)**	
EE4004	Power Systems (3)*	Free Elective 2 (3)	
EE4007	Advanced Power Electronics (3)*	Service-Learning (3)@	
Advanced Elective (EE) 1 (3)**			
CAR III	Cluster-Area Requirement subject 3 (3)		
EE4006 Individual Project (6)			

Table 5.5.1 Progression Pattern of BEng (Hons) in EE for Normal Year 1 Intake [5]

Total credits required for graduation: 120 academic credits + 11 training credits [6]

~ Students will take these subjects based on their English Language results in HKDSE or other public examinations (see Section 5.2 (i)). 1

Students who do not possess the requisite background knowledge in Physics (i.e., attained Level 2 in HKDSE Physics or Combined Science with a component in Physics) are required to take and pass a Physics enhancement subject (AP10001 Introduction to Physics) before they can take AP10005 Physics I and AP10006 Physics II. The enhancement subject will be counted towards the fulfilment of a Free Elective.

^ Students are required to take two Faculty Electives among AMA1120 Basic Mathematics II^^, AP10005 Physics I/AP10006 Physics II or ENG2003 Information Technology in Year 1. AMA1120, AP10005, AP10006 and ENG2003 are Major subjects leading to the award of BEng (Hons) in EE or BEng (Hons) in TSE. Students are required to take the four Major subjects before graduation.

^^ Students are encouraged to take AMA1120 Basic Mathematics II in Year 1. Otherwise, AMA2111 Mathematics I and AMA2112 Mathematics II will have to defer if missing AMA1120 in Year 1.

EE Preferred subject selection for BEng (Hons) Scheme in EE, BEng (Hons) in EE and BEng (Hons) in TSE. AP10006 Physics II and AMA1120 Basic Mathematics II will be pre-assigned for students of BEng (Hons) Scheme in EE in Year 1. AP10005 Physics I and ENG2003 Information Technology will be pre-assigned for students of BEng (Hons) in EE or BEng (Hons) in TSE in Year 2.

% Students of non-native Chinese language background, fulfilling any one of the following criteria with appropriate supporting certificate/document (if applicable), could be exempted from the Chinese LCR at the time of admission. You may use a Chinese LCR subject or free elective to fulfil the credit requirement. You are also exempted from fulfilling the CAR - Chinese Reading and Writing Requirements.

(i) those with their first/native language as non-Chinese stated on the grade report of recognized tests (e.g. IELTS, TOEFL, etc.); OR 2
(ii) those admitted with international qualifications without taking any Chinese subject(s) in their secondary/ high school; OR
(iii) those taken Chinese B or Chinese AB(SL) in IB Diploma; OR
(iv) NCS status shown on the official proof provided by their secondary school.

Otherwise, one subject will be pre-assigned to you as Chinese LCR depending on your Chinese language proficiency and/or previous exam results. You might be given an assessment to ascertain that the pre-assigned subject is suitable for you (see Section 5.2 (i)). 3

\+ Students may choose one subject from (a) to (f) listed below: 4

Engineering Materials++: (a) ENG2001 Fundamentals of Materials Science and Engineering 5
Biology: (b) ABCT1101/ABCT1D04 Introductory Life Science 6
(c) ABCT1303/ABCT1D03 Biotechnology and Human Health
(d) BME11101/BME1D01 Bionic Human and the Future of Being Human
Chemistry: (e) ABCT1301/ABCT1D01 Chemistry and Modern Living 7
(f) ABCT1314/ABCT1D14 Chemistry and Sustainable Development 8

++ ENG2001 will be pre-assigned for students of BEng (Hons) in EE and BEng (Hons) in TSE. 9

* Students may choose subjects listed below to be counted as Level-4 electives or Advanced Elective (EE): 10

(a) EE4003 Electrical Machines 11
(b) EE4004 Power Systems
(c) EE4007 Advanced Power Electronics

** Students are required to complete two Advanced Electives from Table 5.5.2 in Year 4. Out of the two Advanced Electives taken, at least one should be an EE subject. The Department reserves the right of NOT offering all the electives in each year. 12

@ Students are encouraged to take this subject at an earlier stage of study. 13

Advanced Elective (EE)** *(Students should seek prior approval for enrolling on Level 5 EE subjects.)*			
Semester 1		**Semester 2**	
EE4003	Electrical Machines (3)	EE4008	Applied Digital Control (3)
EE4004	Power Systems (3)	EE4024	Industrial Computer Applications (3)
EE4007	Advanced Power Electronics (3)	EEE4002	Modern Electrified Railway Systems
EE4012	Intelligent Buildings (3)		
EE4014	Intelligent Systems Applications in Electrical Engineering (3)		
Semester 1 or Semester 2			
EE502	Modern Protection Methods	EE509	High Voltage Engineering
EE512	Electric Vehicles	EE520	Intelligent Motion Systems
EE521	Industrial Power Electronics	EE526	Power System Analysis and Dynamics
EE530	Electrical Energy Saving Systems	EE533	Railway Power Supply Systems
EE545	Modern Generation and Grid Integration Technologies	EE546	Electric Energy Storage and New Energy Sources for Electric Vehicles
EE548	Advanced Electric Vehicle technology	EE570	Design and Analysis of Smart Grids
EEE523	Economics and Markets in Power Systems and Electrified Transportation	EEE524	Green Technology and Policy in Electrical Engineering
EEE525	Smart Transportation for Green Cities	AF5107	Accounting for Engineers
BSE463	Design of Mechanical Systems in Buildings	CSE40462	Environmental Impact Assessment – Theory and Practice
CSE516	Urban Transport Planning – Theory and Practice	ENG4001	Project Management
ISE404	Total Quality Management	MM4522	China Business Management

Table 5.5.2

** Out of the two Advanced Electives taken in Year 4, at least one should be an EE subject. The Department reserves the right of NOT offering all the electives in each year.

BEng (Hons) in Transportation Systems Engineering (Normal Year 1 Intake) 1

Year 1 (31 academic credits + 2 training credits)			
Semester 1 (16 credits + 1 training credit)		**Semester 2** (15 credits + 1 training credit)	
AMA1110	Basic Mathematics I – Calculus and Probability & Statistics (3)	ELCXXXX	English LCR Subject 2 (3)~
APSS1L01	Tomorrow's Leaders (3)	ENG2002	Computer Programming (3)
EIE1005	Fundamental AI and Data Analytics (2)	CAR I	Cluster-Area Requirement subject 1 (3)
ELCXXXX	English LCR Subject 1 (3)~	Free Elective 1 (3)	
ENG1004	Engineering Professionals in Society I (1)		
MM1031	Introduction to Innovation and Entrepreneurship (1)		
Two Faculty Electives^ should be taken in Year 1			
AP10006	Physics II (3) EE #	AMA1120	Basic Mathematics II – Calculus and Linear Algebra (3) EE
ENG2003	Information Technology (3)	AP10005	Physics I (3)
EEE2103 Applied Engineering Fundamentals (2 training credits)			
Healthy Lifestyle (non-credit bearing)			
Year 2 (31 academic credits + 6 training credits)			
Semester 1 (15 credits + 1 training credit)		**Semester 2** (16 credits + 1 training credit)	
AMA2111	Mathematics I (3)^^	AMA2112	Mathematics II (3)^^
CLC1104P	Chinese LCR Subject (3)%	EEE1001	Industrial Placement Fundamentals (1)
EE2002	Circuit Analysis (3)	EE2003	Electronics (3)
EE2029	Transportation Engineering Fundamentals (3)	EE2004	Electrical Energy Systems Fundamentals (3)
		ENG2001	Fundamentals of Materials Science and Engineering (3)+
At least Two of the following Major subjects^ should be taken in Year 2			
AMA1120	Basic Mathematics II – Calculus and Linear Algebra (3)	AP10006	Physics II (3)
AP10005	Physics I (3) EE	ENG2003	Information Technology (3) EE
EEE2106	MATLAB for Engineers and Scientists (1 training credit)	EEE2107	BIM Basic and Electrical System (1 training credit)
Semester 3: EEE2109 Transportation Systems Engineering Practices (4 training credits)			
Year 3 (29 academic credits + 3 training credits)			
Semester 1 (11 or 14 credits)		**Semester 2** (15 or 18 credits)	
CSE30390	Transportation Systems Analysis (3)	CSE30292	Transportation Operation and Management (3)
EE3012	Transport Operations Modelling (3)	CSE30312	Transportation and Highway Engineering (3)
ELC3531	Professional Communication in English for Engineering Students (2)	EE3004	Power Transmission and Distribution (3)
CAR II	Cluster-Area Requirement subject 2 (3)	EE3013	Transportation Data Analytics (3)
		CAR III	Cluster-Area Requirement subject 3 (3)
One Level-3 elective should be taken in Year 3			
EE3002	Electromechanical Energy Conversion (3)	EE3003	Power Electronics and Drives (3)
EE3005	Systems and Control (3)	EE3009	Electrical Services in Buildings (3)
EIE3333	Data and Computer Communications (3)		
Semester 3: EEE3102 Industrial Placement (3 training credits)			
Year 4 (29 academic credits)			
Semester 1 (13.5 credits)		**Semester 2** (15.5 credits)	
CSE40490	Transport Management and Highway Maintenance (3)	CSE40408	Traffic Surveys and Transport Planning (3)
EEE4001	Public Transportation Systems and Electrified Transportation (3)	EE4019	Intelligent Transportation Systems (3)
		ENG3006	Engineering Professionals in Society II (2)
One Advanced Elective and One Free Elective should be taken in Year 4			
Advanced Elective (TSE) (3)**		Free Elective 1 (3)	
EE4006 Individual Project (6)			
Service-Learning (3)@			

2

Table 5.5.3 Progression Pattern of BEng (Hons) in TSE for Normal Year 1 Intake 3

Total credits required for graduation: 120 academic credits + 11 training credits 4

~ Students will take these subjects based on their English Language results in HKDSE or other public examinations (see Section 5.2 (i)). 1

Students who do not possess the requisite background knowledge in Physics (i.e., attained Level 2 in HKDSE Physics or Combined Science with a component in Physics) are required to take and pass a Physics enhancement subject (AP10001 Introduction to Physics) before they can take AP10005 Physics I and AP10006 Physics II. The enhancement subject will be counted towards the fulfilment of a Free Elective.

^ Students are required to take two Faculty Electives among AMA1120 Basic Mathematics II^^, AP10005 Physics I/AP10006 Physics II or ENG2003 Information Technology in Year 1. AMA1120, AP10005, AP10006 and ENG2003 are Major subjects leading to the award of BEng (Hons) in EE or BEng (Hons) in TSE. Students are required to take the four Major subjects before graduation.

^^ Students are encouraged to take AMA1120 Basic Mathematics II in Year 1. Otherwise, AMA2111 Mathematics I and AMA2112 Mathematics II will have to defer if missing AMA1120 in Year 1.

EE Preferred subject selection for BEng (Hons) Scheme in EE, BEng (Hons) in EE and BEng (Hons) in TSE. AP10006 Physics II and AMA1120 Basic Mathematics II will be pre-assigned for students of BEng (Hons) Scheme in EE in Year 1. AP10005 Physics I and ENG2003 Information Technology will be pre-assigned for students of BEng (Hons) in EE or BEng (Hons) in TSE in Year 2.

% Students of non-native Chinese language background, fulfilling any one of the following criteria with appropriate supporting certificate/document (if applicable), could be exempted from the Chinese LCR at the time of admission. You may use a Chinese LCR subject or free elective to fulfil the credit requirement. You are also exempted from fulfilling the CAR - Chinese Reading and Writing Requirements.

(i) those with their first/native language as non-Chinese stated on the grade report of recognized tests (e.g. IELTS, TOEFL, etc.); OR 2
(ii) those admitted with international qualifications without taking any Chinese subject(s) in their secondary/ high school; OR
(iii) those taken Chinese B or Chinese AB(SL) in IB Diploma; OR
(iv) NCS status shown on the official proof provided by their secondary school.

Otherwise, one subject will be pre-assigned to you as Chinese LCR depending on your Chinese language proficiency and/or previous exam results. You might be given an assessment to ascertain that the pre-assigned subject is suitable for you (see Section 5.2 (i)). 3

\+ Students may choose one subject from (a) to (f) listed below: 4

Engineering Materials++: (a) ENG2001 Fundamentals of Materials Science and Engineering 5
Biology: (b) ABCT1101/ABCT1D04 Introductory Life Science 6
(c) ABCT1303/ABCT1D03 Biotechnology and Human Health 7
(d) BME11101/BME1D01 Bionic Human and the Future of Being Human
Chemistry: (e) ABCT1301/ABCT1D01 Chemistry and Modern Living 8
(f) ABCT1314/ABCT1D14 Chemistry and Sustainable Development 9

++ ENG2001 will be pre-assigned for students of BEng (Hons) in EE and BEng (Hons) in TSE. 10

** Students are required to complete one Advanced Elective from Table 5.5.4 in Year 4. The Department reserves the right of NOT offering all the electives in each year. 11

@ Students are encouraged to take this subject at an earlier stage of study.

Advanced Elective (TSE)** *(Students should seek prior approval for enrolling on Level 5 EE subjects.)*			
Semester 1		**Semester 2**	
EE4004	Power Systems (3)	EE4008	Applied Digital Control (3)
EE4007	Advanced Power Electronics (3)	EE4024	Industrial Computer Applications (3)
EE4012	Intelligent Buildings (3)		
EE4014	Intelligent Systems Applications in Electrical Engineering (3)		
Semester 1 or Semester 2			
EIE4104	Mobile Networking	EE512	Electric Vehicles
EE533	Railway Power Supply Systems	EE535	Maintenance and Reliability Engineering
EE536	Signalling and Train Control Systems	EE537	Railway Vehicles
EE546	Electric Energy Storage and New Energy Sources for Electric Vehicles	EE548	Advanced Electric Vehicle technology
EEE523	Economics and Markets in Power Systems and Electrified Transportation	EEE524	Green Technology and Policy in Electrical Engineering
EEE525	Smart Transportation for Green Cities	CSE40462	Environmental Impact Assessment – Theory and Practice
CSE40475	Sustainable Development Strategy	CSE561	Public Transport: Operations and Service Planning
CSE562	Traffic Engineering and Control	ENG4001	Project Management
LGT5013	Transport Logistics in China		

Table 5.5.4

** The Department reserves the right of NOT offering all the electives in each year.

5.6 Progression Pattern for Senior Year Students 1

The following progression patterns are recommended for Senior Year Students. 2

BEng (Hons) in Electrical Engineering (Senior Year Intake) Note 1 3

4

Year 1 (30 academic credits + 11 training credits)	
Semester 1 (15 credits + 2.5 training credits)	**Semester 2** (15 credits + 2.5 training credits)
AF3625 Engineering Economics (3)	CLC3241P Professional Communication in Chinese (2)
EE3001 Analogue and Digital Circuits (3)	EEE2001 Applied Electromagnetics (2)
EE3005 Systems and Control (3)	EE3004 Power Transmission and Distribution (3)
ENG2001 Fundamentals of Materials Science and Engineering (3) Note 2	EE3006 Analysis Methods for Engineers (3)
CAR A – English Language one Cluster Area Requirement subject in CAR A - English Language (3) Note 3	ELC3531 Professional Communication in English for Engineering Students (2)
	ENG2003 Information Technology (3)
	EEE1101 Industrial Placement Fundamentals (1 training credit)
EE2101 Engineering Communication and Fundamentals (4 training credits)	
EEE1Q01 Essential Components of General Education (non-credit bearing)	
Semester 3: EE2102 IC Training I (EE) (4 training credits) & EEE3101 Industrial Placement (2 training credits)	
Year 2 (30 academic credits)	
Semester 1 (13.5 or 16.5 credits)	**Semester 2** (13.5 or 16.5 credits)
ENG3003 Engineering Management (3)	ENG3004 Society and the Engineer (3)
At least Two Level-4 electives Note 4 *should be taken*	*Two advanced electives* Note 5 *from Table 5.5.2 and One CAR subject should be in Year 4*
EE4003 Electrical Machines (3)	Advanced Elective (EE) 1 (3)
EE4004 Power Systems (3)	Advanced Elective (EE) 2 (3)
EE4007 Advanced Power Electronics (3)	CAR M one Cluster Area Requirement subject in CAR M (3) Note 3
EE4006 Individual Project (6)	
Service-Learning (3) Note 6	

Table 5.6.1 Progression Pattern of BEng (Hons) in EE for Senior Year Intake 5

Total credits required for graduation: 60 academic credits Note 1,7 **+ 11 training credits** 6

Note 1: This is an example only which shows a possible study pattern for graduates with relevant Higher Diploma/Associate Degree from a recognized institution. The exact study pattern for senior year intakes varies from student to student depending on the number of subjects approved for credit transfer. 1

Note 2: Students may choose one subject from (a) to (f) listed below:

Engineering Materials+:	(a) ENG2001 Fundamentals of Materials Science and Engineering 2
Biology:	(b) ABCT1101/ABCT1D04 Introductory Life Science 3
	(c) ABCT1303/ABCT1D03 Biotechnology and Human Health
	(d) BME11101/BME1D01 Bionic Human and the Future of Being Human
Chemistry:	(e) ABCT1301/ABCT1D01 Chemistry and Modern Living 4
	(f) ABCT1314/ABCT1D14 Chemistry and Sustainable Development 5

+ ENG2001 will be pre-assigned for students of BEng (Hons) in EE and BEng (Hons) in TSE. 6

Note 3: The study pattern for the subjects is indicative only. Students may take these subjects according to their own schedule. However, CAR A – English Language should be completed in the first year of study, including non-mandatory summer semester. Students also need to fulfil the Chinese reading and writing requirements (CR/CW), if such requirements have not been fulfilled in previous studies. 7

Note 4: Students may choose subjects listed below to be counted as Level-4 electives or Advanced Elective (EE):

(a) EE4003 Electrical Machines 8
(b) EE4004 Power Systems
(c) EE4007 Advanced Power Electronics

Note 5: Students are required to complete two Advanced Electives from Table 5.5.2 in Year 4. Out of the two Advanced Electives taken, at least one should be an EE subject. The Department reserves the right of NOT offering all the electives in each year. 9

Note 6: Students are encouraged to take this subject at an earlier stage of study.

Note 7: The credits required and progression pattern presented above are for students who have been given credit transfer of the 9 credits Undergraduate Degree LCR subjects based upon their previous studies. Students not meeting the equivalent standard of the Undergraduate Degree LCR will be required to take the required subjects. Details on the Undergraduate Degree LCR subjects are given in Section 5.2 (i).

BEng (Hons) in Transportation Systems Engineering (Senior Year Intake) [Note 1] 1

Year 1 (36 academic credits + 11 training credits)			
Semester 1 (19 credits + 2 training credits)		**Semester 2** (17 credits + 3 training credits)	
AF3625	Engineering Economics (3)	CSE30292	Transportation Operation and Management (3)
CSE30390	Transportation Systems Analysis (3)	CSE30312	Transportation and Highway Engineering (3)
EEE2003	Transportation Engineering Fundamentals (2)	EEE2001	Applied Electromagnetics (2)
EE3012	Transport Operations Modelling (3)	EE3004	Power Transmission and Distribution (3)
ELC3531	Professional Communication in English for Engineering Students (2)	EE3013	Transportation Data Analytics (3)
ENG2001	Fundamentals of Materials Science and Engineering (3) [Note 2]	ENG2003	Information Technology (3)
CAR A – English Language	one Cluster Area Requirement subject in CAR A - English Language (3) [Note 3]	EEE1101	Industrial Placement Fundamentals (1 training credit)
EE2101 Engineering Communication and Fundamentals (4 training credits)			
EEE1Q01 Essential Components of General Education (non-credit bearing)			
Semester 3: EE2103 IC Training I (TSE) (4 training credits) & EEE3101 Industrial Placement (2 training credits)			
Year 2 (35 academic credits)			
Semester 1 (16.5 credits)		**Semester 2** (18.5 credits)	
CSE40407	Design of Transport Infrastructure (3)	CLC3241P	Professional Communication in Chinese (2)
CSE40490	Transport Management and Highway Maintenance (3)	CSE40408	Traffic Surveys and Transport Planning (3)
ENG3003	Engineering Management (3)	EE4019	Intelligent Transportation Systems (3)
One advanced elective [Note 4] *from Table 5.5.4 should be taken in Year 4*		ENG3004	Society and the Engineer (3)
Advanced Elective (TSE) (3)		CAR M	one Cluster Area Requirement subject in CAR M (3) [Note 3]
EE4006 Individual Project (6)			
Service-Learning (3) [Note 5]			

2

Table 5.6.2 Progression Pattern of BEng (Hons) in TSE for Senior Year Intake 3

Total credits required for graduation: 71 academic credits [Note 1,6] **+ 11 training credits** 4

Note 1: This is an example only which shows a possible study pattern for graduates with relevant Higher Diploma/Associate Degree from a recognized institution. The exact study pattern for senior year intakes varies from student to student depending on the number of subjects approved for credit transfer. 1

Note 2: Students may choose one subject from (a) to (f) listed below:

Engineering Materials+:	(a) ENG2001 Fundamentals of Materials Science and Engineering 2
Biology:	(b) ABCT1101/ABCT1D04 Introductory Life Science 3
	(c) ABCT1303/ABCT1D03 Biotechnology and Human Health
	(d) BME11101/BME1D01 Bionic Human and the Future of Being Human
Chemistry:	(e) ABCT1301/ABCT1D01 Chemistry and Modern Living 4
	(f) ABCT1314/ABCT1D14 Chemistry and Sustainable Development 5

+ ENG2001 will be pre-assigned for students of BEng (Hons) in EE and BEng (Hons) in TSE. 6

Note 3: The study pattern for the subjects is indicative only. Students may take these subjects according to their own schedule. However, CAR A – English Language should be completed in the first year of study, including non-mandatory summer semester. Students also need to fulfil the Chinese reading and writing requirements (CR/CW), if such requirements have not been fulfilled in previous studies. 7

Note 4: Students are required to complete one Advanced Elective from Table 5.5.4 in Year 4. The Department reserves the right of NOT offering all the electives in each year.

Note 5: Students are encouraged to take this subject at an earlier stage of study.

Note 6: The credits required and progression pattern presented above are for students who have been given credit transfer of the 9 credits Undergraduate Degree LCR subjects based upon their previous studies. Students not meeting the equivalent standard of the Undergraduate Degree LCR will be required to take the required subjects. Details on the Undergraduate Degree LCR subjects are given in Section 5.2 (i).

5.7 Curriculum Map 1

Table 5.7.1 illustrates how the subjects support the Programme Outcomes of BEng (Hons) in Electrical Engineering through teaching activities (T), practice on the part of students (P), and measurements (M). 2

BEng (Hons) in Electrical Engineering 3

4

Subject Code	Programme Outcomes								
	1	2	3	4	5	6	7	8	9
General University Requirements (GUR)									
APSS1L01					T		T		T
CLC1104C/P					T		T		
EIE1005	TP		TP	TP	TP			TP	
MM1031				T	T	T	T	T	TP
Service Learning					TP		TP		TP
CAR Subjects					T		T		T
ELC subjects: 2 subjects out of the following ELC subjects depend on HKDSE results									
ELC1011					T		T		
ELC1013					T		T		
ELC2011					T		T		
ELC2012					T		T		
ELC2013					T		T		
ELC2014					T		T		
Major subjects in Electrical Engineering									
AMA1110	T			T				T	
AMA1120	T			T				T	
AMA2111	T			T				T	
AMA2112	T			T				T	
AP10005	T							T	
AP10006	T							T	
EEE1001	TP		TP	TP	TP			TP	TP
EE2002	T	T							
EE2003	T	T	T		T		T		
EE2004	T	T		T			T	T	
EE3001	TP	TP	TP	TP	TP				
EE3002	TP	TP	TP				TP		
EE3003	TP	TP	TP						
EE3004	TPM	TPM	TPM						
EE3005	TPM	TPM	TPM	TPM			TP	TP	
EE3006	TP	TP	TP	TP	TP	TP			
EE3007	TP	TP	TP	TP	TP				
EE3008	TP		TP		TP		TP	TP	
EE3009	TP		TP	TP	TP	TP		TP	
EE4006	TP	TP	TPM	TPM	TP	TP	TPM	TPM	
ELC3531					TP		TP		
ENG1004				T	T	T	T		
ENG2001	T			T				T	
ENG2002	T		T	T	T			T	
ENG2003	T		T	T	T			T	
ENG3006				TPM	TP	TPM	TP		TP

Subject Code	Programme Outcomes								
	1	2	3	4	5	6	7	8	9
Level-4 electives: 2 subjects out of the following 3 subjects: EE4003, EE4004 and EE4007									
EE4003	TPM	TPM	TPM	TPM	TP				
EE4004	TPM	TPM		TPM			TP		
EE4007	TP		TP	TP	TP		TP		TP
Advanced elective: 2 subjects out of the followings									
EE4003	TPM	TPM	TPM	TPM	TP				
EE4004	TPM	TPM		TPM			TP		
EE4007	TP		TP	TP	TP		TP		TP
EE4008	TP		TP	TP		TP		TP	TP
EE4012		TP	TP		TP		TP		TP
EE4014	TP	TP	TP						
EE4024		TP	TP	TP		TP		TP	
EEE4002	TP	TP			TP			TP	
EE502			TP	TP	TP			TP	
EE509			TP	TP	TP			TP	
EE512			TP	TP	TP			TP	
EE520			TP	TP	TP			TP	
EE521			TP	TP	TP			TP	
EE526			TP	TP	TP			TP	
EE530			TP	TP	TP			TP	
EE533			TP	TP	TP			TP	
EE545			TP	TP	TP			TP	
EE546			TP	TP	TP			TP	
EE548			TP	TP	TP			TP	
EE570			TP	TP	TP			TP	
EEE523			TP	TP	TP			TP	
EEE524			TP	TP	TP			TP	
EEE525			TP	TP	TP			TP	
AF5107				TP	TP	TP	TP	TP	TP
BSE463			TP	TP	TP			TP	
CSE40462				TP	TP	TP		TP	TP
CSE516				TP	TP	TP		TP	TP
ENG4001				TP	TP	TP	TP	TP	TP
ISE404				TP	TP	TP		TP	TP
MM4522				TP	TP	TP		TP	TP
Training Subjects									
EEE2103		TP	TP				TP		T
EEE2106		TP	TP				TP		T
EEE2107		TP	TP				TP		T
EEE2108		TP	TP				TP		T
EEE3102		TPM		TPM	TPM	TPM			TPM

Table 5.7.1 Alignment of Subjects with Programme Intended Learning Outcomes

Table 5.7.2 illustrates how the subjects support the Programme Outcomes of BEng (Hons) in Transportation Systems Engineering through teaching activities (T), practice on the part of students (P), and measurements (M). 1

BEng (Hons) in Transportation Systems Engineering 2

3

Subject Code	Programme Outcomes								
	1	2	3	4	5	6	7	8	9
General University Requirements (GUR)									
APSS1L01					T		T		T
CLC1104C/P					T		T		
EIE1005	TP		TP	TP	TP			TP	
MM1031				T	T	T	T	T	TP
Service Learning					TP		TP		TP
CAR Subjects					T		T		T
ELC subjects: 2 subjects out of the following ELC subjects depend on HKDSE results									
ELC1011					T		T		
ELC1013					T		T		
ELC2011					T		T		
ELC2012					T		T		
ELC2013					T		T		
ELC2014					T		T		
Major subjects in Transportation Systems Engineering									
AMA1110	T			T				T	
AMA1120	T			T				T	
AMA2111	T			T				T	
AMA2112	T			T				T	
AP10005	T							T	
AP10006	T							T	
CSE30292	TP	TP	TP	TP				TP	
CSE30312	TPM	TPM	TPM		TP		TP		
CSE30390	TPM	TPM	TPM	TPM				TP	
CSE40408		TPM	TP	TPM	TP	TP	TP		TP
CSE40490	TPM	TPM	TPM	TPM				TP	
EEE1001	TP		TP	TP	TP			TP	TP
EE2002	T	T							
EE2003	T	T	T		T		T		
EE2004	T	T		T			T	T	
EE2029	T	T	T	T	T	T		T	
EE3004	TPM	TPM	TPM						
EE3012	TPM	TPM	TPM	TPM				TP	
EE3013	TPM	TPM	TPM	TPM				TP	
EE4006	TP	TP	TPM	TPM	TP	TP	TPM	TPM	
EE4019		TP			TP		TP		
EEE4001	TPM	TPM	TPM	TP				TP	
ELC3531					TP		TP		
ENG1004				T	T	T	T		
ENG2001	T			T				T	
ENG2002	T		T	T	T			T	
ENG2003	T		T	T	T			T	
ENG3006				TPM	TP	TPM	TP		TP

Subject Code	Programme Outcomes								
	1	2	3	4	5	6	7	8	9
Level-3 elective: 1 subject out of the followings									
EE3002	TP	TP	TP				TP		
EE3003	TP	TP	TP						
EE3005	TPM	TPM	TPM	TPM			TPM	TPM	
EE3009	TP		TP	TP	TP	TP		TP	
EIE3333	TP	TP		TP				TP	
Advanced elective: 1 subject out of the followings									
EE4004	TP	TP		TP			TP		
EE4007	TP		TP	TP	TP		TP		TP
EE4008			TP	TP	TP			TP	
EE4012		TP	TP		TP		TP		TP
EE4014	TP	TP	TP						
EE4024		TP	TP	TP		TP		TP	
EE512			TP	TP	TP			TP	
EE533			TP	TP	TP			TP	
EE535			TP	TP	TP			TP	
EE536			TP	TP	TP			TP	
EE537			TP	TP	TP			TP	
EE546			TP	TP	TP			TP	
EE548			TP	TP	TP			TP	
EEE523			TP	TP	TP			TP	
EEE524			TP	TP	TP			TP	
EEE525			TP	TP	TP			TP	
EIE4104			TP	TP	TP			TP	
CSE40462	TP	TP			TP	TP			
CSE40475			TP	TP	TP				
CSE561			TP	TP	TP			TP	
CSE562			TP	TP	TP			TP	
ENG4001			TP	TP	TP			TP	TP
LGT5013			TP	TP	TP			TP	
Training Subjects									
EEE2103		TP	TP				TP		T
EEE2106		TP	TP				TP		T
EEE2107		TP	TP				TP		T
EEE2109		TP	TP				TP		T
EEE3102		TPM		TPM	TPM	TPM			TPM

Table 5.7.2 Alignment of Subjects with Programme Intended Learning Outcomes

5.8 Work-Integrated Education and Industrial Placement 1

Work-Integrated Education (WIE) is defined as a structured and measurable learning experience which takes place in an organisational context relevant to a student's future profession. It aims to prepare students for the realities of workplaces, develop students' ability to learn in non-academic surroundings, allow students to assess their own strengths and weaknesses in a realistic working settings and develop students' critical thinking and problem solving capabilities. 2

Industrial Placement (EEE3012) normally takes place during the summer at the end of Year Three. Students are expected to complete a minimum of 6 weeks of full-time (or equivalent) industrial training (3 training credits), of which is valid for WIE activities as recognised by the University. 3

WIE activities may include placement, employment or attachment relevant to the context, knowledge and skills of the Programme. The Job Board arranged by the Student Affairs Office (SAO) of the University is one of the main sources of placement opportunities for local students and students from Mainland China and overseas. The WIE activities may or may not involve any payment. Any payment by employers is completely at the employers' discretion. Typical examples of WIE activities are as follows: 4

- Full-time placement in a suitable organisation for 6 weeks. 5
- Assisting in PolyU activities that have an external collaboration or service component, such as Innovation and Technology Fund projects, Rapid Product Development Syndicate projects, Industrial Guided Applied Research and Development projects, high-level consultancy projects, collaborative research projects undertaken with external organisations, and jobs undertaken by the Industrial Centre as a service for an external organisation.
- Placement within the IAESTE (International Association for the Exchange of Students for Technical Experience) Programme, in which the student is attached to a workplace abroad during training.
- Students work on their final-year degree project, which involves an industrial partner or external client. The student need not be placed in the company, but will make frequent visits to ensure the project meets with the specifications required by the company.

To ensure students gain valuable experience, the industrial training must be carefully selected and well-organized. Prior to starting their placement, students must outline the expected learning outcomes and, upon completion, submit a report detailing their learning outcomes and achievements. Consequently, the following learning support activities will be conducted. 6

(i) Orientation 7

Students should begin their preparatory work at the start of the second semester, typically in their third-year of study. An orientation will be provided covering the following: 8

- Basic skills in undertaking practical training 9
- Planning and scheduling for successful completion of assessment tasks
- Information on searching local or non-local work-base employment and attachments

(ii) Progress Monitoring

During the training period, students should maintain a training journal to document their progress. The journal may include:

- **Location and title of the internship**: Summarise where practical training took place and how the internship fits into the overall structure of the host organization.
- **Responsibilities**: Describe the actual responsibilities undertaken during the internship.
- **Skills and Knowledge**: Detail the skills and knowledge required to fulfill the work responsibilities. Explain how these skills and knowledge evolved throughout the work experiences and their relevance to the academic studies and future goals.
- **Outcome**: Describe the placement experiences and major achievements with concrete examples.

(iii) Learning Evaluation

Upon completing their practical training, students are required to submit a report about their work experience. It provides an opportunity for the student to reflect upon the learning gained at the work site. The framework of the report includes:

- A summary of the report.
- Detail description of activities carried out during the placement, **minimum 6 pages**.
- A self-reflection: students articulate their thinking about each piece in the report, as well as on the entire report. Through this process of reflection, students draw connections between work experience and university-based learning, construct new knowledge, and become increasingly aware of themselves as learners.
- Conclusion: after reflection on their workplace experience, students set goals and directions for future learning.

5.9 Industrial Centre (IC) Training

Besides the WIE training components, students are required to undertake training at the Industrial Centre (IC), which is equivalent to 8 training credits. The training is scheduled within Year One and at the end of Year Two. Students will not pay any training fee, nor receive any stipend. IC training is however not part of WIE activities

5.10 Language Enhancement Subjects

All students are strongly encouraged to make full use of the facilities and services provided in the ELC and CLC to improve their language proficiency throughout the programme.

5.11 Physics Enhancement Subject

Students who do not possess the requisite background knowledge in Physics (i.e., attained Level 2 in HKDSE Physics or Combined Science with a component in Physics) are required to take and pass a Physics enhancement subject (Introduction to Physics) before they can take Physics I and Physics II.

6 Management and Operation 1

6.1 Administration 2

The daily operation of the programme, such as general administration of admission, registrations, student records, preparation for Board of Examiners meetings and documentations, is overseen by the Scheme/Programme Leader and the administrative team of the Department. All enquiries regarding registration and general administration from students on the programme should be made to the General Office as the first contact point. 3

The Departmental Programmes Committee (DPC), in which the Head of Department and the Scheme/Programme Leaders of all programmes offered by the Department are members, discusses and reviews the programme structure, syllabi content, high-level integration and future directions of the programme. The Departmental Learning and Teaching Committee (DLTC) advises on matters related to teaching methods and learning quality and cultivates the positive mentality toward teaching and learning among teaching staff and students. WIE/Career Liaison Officer and Student-Exchange Coordinator are appointed by the Department to provide students with advice and assistance. 4

6.2 Student-Staff Consultative Group (SSCG) 5

The Student-Staff Consultative Group consists of Student Representatives together with the Scheme/Programme Leader. The Committee is normally chaired by the Scheme/Programme Leader and meets at least twice a year. Issues to be kept under consideration include: student workload, teaching methods, balance between subject areas, training matters and other areas of mutual concern. 6

6.3 Academic Advising 7

While the Scheme/Programme Leader is available for the operation of the programme, general enquiries and counselling, Academic Advisors are in place to offer more personal contacts and to look after students' needs. 8

The Academic Advisors, usually an academic staff member, is assigned to each newly admitted student and he/she will be with the students till graduation. Academic Advisors provide continuous and individual counselling and help guide the students through various difficulties, if any, which might affect their studies. A specific staff member from the General Office will work closely with the Scheme/Programme Leaders and the Academic Advisors. All academic requirements and regulations related to academic programmes offered by the department as well as the GUR requirements will be provided to the students. 9

7 Academic Regulations on Admission, Registration and Assessment 1

The admission, registration and assessment arrangements described below are in accordance with the University policies and regulations for all 4-year full-time undergraduate degree programmes and articulation degree programmes. 2

7.1 Admission 3

Students in UGC-funded degree programmes will be recruited on a yearly basis. 4

7.2 Re-admission 5

Students who have been required to withdraw on grounds of academic failure or have been de-registered, and those who have discontinued their studies without completing the proper procedures for official withdrawal, shall not be considered for re-admission to the same scheme/programme/stream in the following academic year. 6

7.3 Transfer of study within the University 7

Students who have not completed their programmes of study may apply to transfer to another programme, and may be admitted, provided that the total period of registration will not exceed the normal duration of the original or new study programme, whichever is longer. Unless exceptionally approved by Academic Planning and Regulations Committee (APRC) Chairman, year one new students will only be considered for transfer to another programme offered in the same mode of study, starting from their second semester of registration. 8

Students who are currently on a UGC-funded programme and wish to transfer to another PolyU full-time UGC-funded programme of the same level should submit an application for transfer of study, instead of a new application in the non-JUPAS application period. 9

All applications for transfer of study will be considered in competition with other new applications. 10

7.4 Concurrent Enrolment 11

Students are not permitted to enrol concurrently on two full-time UGC-funded programmes, whether or not one of the programmes is offered by another institution. 12

In addition, students are not allowed to enrol concurrently on more than one programme (regardless of the mode of study), including those offered by another institution, without permission from the Head(s) of Department concerned, except for programmes which do not lead to any formal award. 13

7.5 Normal Duration for Completion of the Programme 14

Students should complete the programme within the normal duration of the programme as specified in the Programme Requirement Document. Those who exceed the normal duration of the programme will be de-registered from the programme unless prior approval has been obtained from relevant authorities. The study period of a student shall exclude deferment granted for justifiable reasons, and the semester(s) when the student has been approved to undertake internship. Any semester in which the students are allowed to take zero subject will be counted towards their total period of registration. 15

Students who have been registered for the normal duration of the programme may request extension of their studies for up to one year with the approval of the relevant Heads of Department/Deans of Independent School. Applications for extension of study period beyond one year and up to two years will require the approval from Faculty/School Board Chairman. 1

Students who have exceeded the normal duration of the programme for more than two years and have been de-registered can submit an appeal to the Academic Appeals Committee to request further extension. If the appeal fails, the student shall be de-registered. 2

To enable student sportsmen to manage their participation in trainings/competitions and academic studies, the normal duration for completion of programmes for students admitted via the OSRS will automatically be extended for two years. Further extension will follow the prevailing regulations. 3

7.6 Validity Period of Subject Credits 4

The validity period of subject credits earned is eight years from the year of attainment, i.e., the year in which the subject is completed. Credits earned from previous study should remain valid at the time when the student applies for credit transfer. 5

7.7 Residential Requirement 6

In order to be considered for a PolyU award, a student must complete at least 1/3 of the normal credit requirement for the award he/she is currently enrolled, unless the professional bodies concerned stipulate otherwise. This 1/3 requirement is also applicable to Minor programme and Secondary Major. Students must take at least 6 credits from their chosen Minor programme or at least 12 credits from their chosen Secondary Major in order to satisfy the residential requirement of their chosen Minor or Secondary Major. 7

7.8 Subject Registration and Withdrawal 8

In addition to programme registration, students need to register for the subjects at specified periods prior to the commencement of the semester. An add/drop period will also be scheduled for each semester/term. Students may apply for withdrawal of their registration on a subject after the add/drop period and before the commencement of the examination period if they have a genuine need to do so. The application should be made to the relevant programme offering Department and will require the approval of both the subject teacher and the host Department Programme Leader concerned. Applications submitted after the commencement of the examination period will not be considered. For approved applications of subject withdrawal, the tuition fee paid for the subject will be forfeited and the withdrawal status of the subject will be shown in the assessment result notification and transcript of studies, but will not be counted in the calculation of the GPA. 9

The pre-requisite requirements of a subject must have been fulfilled before a student registers for that subject. However, the subject offering Department has the discretion to waive the pre-requisite requirements of a subject, if deemed appropriate. If the pre-requisite subject concerned forms part of the requirements for award, the subject has to be passed in order to satisfy the graduation requirements for the programme concerned, despite the waiving of the pre-requisite. 10

Subject to the maximum study load of 21 credits per semester and the availability of study places, students are allowed to take additional subjects on top of the prescribed credit 11

requirement for award before they become eligible for graduation. Students will be allowed to take additional subjects for broadening purpose, after they fulfil the graduation requirements and for the following semester. However, they will still be subject to the maximum study load of 21 credits per semester and the availability of places in the subjects concerned, and their enrolment will be arranged as subject-based students only and be subject to the rules on 'Admission of Subject-based Students', except that graduates from UGC-funded programmes will not be restricted to taking only subjects from a self-financed programme. 1

7.9 Study Load 2

For students following the progression pattern specified for their programme, they have to take the number of credits and subjects, as specified in this Programme Requirement Document, for each semester. Students cannot drop those subjects assigned by the department unless prior approval has been given by the department. 3

The normal study load is 15 credits in a semester for full-time study. The maximum study load to be taken by a student in a semester is 21 credits, unless exceptional approval is given by the Head of the programme offering department. For such cases, students should be reminded that the study load approved should not be taken as the grounds for academic appeal. 4

To help improve the academic performance of students on academic probation, these students will be required to take a reduced study load in the following semester (Summer Term excluded). The maximum number of credits to be taken by the students varies according to the policies of individual Departments and will be subject to the approval of the authorities concerned. 5

Students are not allowed to take zero subject in any semester, including the mandatory summer term as required by some programmes, unless they have obtained prior approval from the programme offering department; otherwise they will be classified as having unofficially withdrawn from their programme. Students who have been approved for zero subject enrolment (i.e., taking zero subject in a semester) are allowed to retain their student status and continue using campus facilities and library facilities. Any semester in which the students are allowed to take zero subject will nevertheless be counted towards the total period of registration. 6

Students who have obtained approval to pace their studies and students on programmes without any specified progression pattern who wish to take more than the normal load of 15 credits in a semester should seek advice from the Department concerned before the selection of subjects. 7

7.10 Subject Exemption 8

Students may be exempted from taking any specified subjects, including mandatory GUR subjects, if they have successfully completed similar subjects previously in another programme or have demonstrated the level of proficiency/ability to the satisfaction of the subject offering Department. Subject exemption is normally decided by the subject offering Department. However, for applications which are submitted by students who have completed an approved student exchange programme, the subject exemption is to be decided by the programme offering Department in consultation with the subject offering Departments. If students are exempted from taking a specified subject, the credits associated with the exempted subject will not be counted towards meeting the award requirements. It will therefore be necessary for the students to consult the programme offering Department and take another subject in order to satisfy the credit requirement for the award. 9

7.11 Credit Transfer [1]

Students may be given credits for recognised previous studies including mandatory General University Requirements (GUR) subjects, and the credits will be counted towards meeting the requirements for award/degree. Transferred credits may not normally be counted towards more than one degree. The granting of credit transfer is a matter of academic judgment. [2]

Credit transfer may be done with or without the grade being carried over; the former should normally be used when the credits were gained from PolyU. Credit transfer with the grade being carried over may be granted for subjects taken from outside the University, if deemed appropriate, and with due consideration to the academic equivalence of the subjects concerned and the comparability of the grading systems adopted by the University and the other approved institutions. Subject credit transfer is normally decided by the subject offering Department. However, for applications which are submitted by students who have completed an approved student exchange programme, the decision will be made by the programme offering Department in consultation with the subject offering Departments. [3]

Normally, not more than 50% of the credit requirement for award may be transferable from approved institutions outside the University. For transfer of credits from programmes offered by PolyU, normally not more than 67% of the credit requirement for award can be transferred. In cases where both types of credits are being transferred (i.e. from programmes offered by PolyU and from approved institutions outside the University), not more than 50% of the credit requirement for award may be transferred. However, for students admitted to an Articulation Degree or Senior Year curriculum, which is already a reduced curriculum, they should not be given credit transfer for any required GUR subjects, and are required to complete at least 60 credits in order to be eligible for a Bachelor's award. [4]

With applications for transfer of credits earned through study under an approved exchange programme, students should seek approval on their study plan and credit transferability from the programme offering Department before they start the exchange programme. In order to overcome possible problems associated with subject-to-subject mappings, block credit transfer rather than subject-by-subject credit transfer can be given. [5]

All credit transfers approved will take effect in the semester for which they are approved. A student who applies for transfer of credits for a particular semester will only be eligible for graduation at the end of that semester (even if the granting of credit transfer will immediately enable the student to satisfy the credit requirement for the award). [6]

For credit transfer of retaken subjects, the grade attained in the last attempt should be taken in the case of credit transfer with grade being carried over. Students applying for credit transfer for a subject taken in other institutions are required to declare that the subject grade used for claiming credit transfer was attained in the last attempt of the subject in their previous studies. If a student fails in the last attempt of a retaken subject, no credit transfer should be granted, despite the fact that the student may have attained a pass grade for the subject in the earlier attempts. [7]

Students should not be granted credit transfer for a subject which they have attempted and failed in their current study unless the subject was taken by the student as an exchange-out student in his/her current programme. [8]

7.12 Deferment of Study [1]

Students may apply for deferment of study if they have a genuine need to do so such as illness or posting to work outside Hong Kong. Approval from the Department offering the programme is required. The deferment period will not be counted towards the total period of registration. [2]

Application for deferment of study from students who have not yet completed the first year of a full-time programme will only be considered in exceptional circumstances. [3]

Where the period of deferment of study begins during a stage for which fees have been paid, no refund of such fees will be made. [4]

Students who have been approved for deferment are not entitled to enjoy any campus facilities during the deferment period. [5]

7.13 General Assessment Regulations [6]

Students progress by credit accumulation, i.e., credits earned by passing individual subjects can be accumulated and counted towards the final award. [7]

A 'level' in a programme indicates the intellectual demand placed upon students and may characterise each subject with respect to its recommended sequencing within that programme. Upper level subjects should normally build on lower level subjects. Pre-requisite requirements, if any, must therefore be spelt out on a subject basis. [8]

A 'subject' is defined as a discrete section of the programme which is assigned a separate assessment. A list of subjects, together with their level and weightings, shall be published in the Programme Requirement Document. [9]

The language of assessment for all programmes/subjects shall be English, unless approval is given for it to be otherwise. [10]

7.14 Principles of Assessment [11]

Assessment *of* learning and assessment *for* learning are both important for assuring the quality of student learning. Assessment *of* learning is to evaluate whether students have achieved the intended learning outcomes of the subjects that they have taken and have attained the overall learning outcomes of the academic programme at the end of their study at a standard appropriate to the award. Appropriate methods of assessment that align with the intended learning outcomes should be designed for this purpose. The assessment methods will also enable the teacher to differentiate students' different levels of performance within the subject. Assessment *for* learning is to engage students in productive learning activities through purposefully designed assessment tasks. [12]

Assessment will also serve as feedback to students. The assessment criteria and standards should be made explicit to students before the start of the assessment to facilitate student learning, and feedback provided should link to the criteria and standards. Timely feedback should be provided to students so that they are aware of their progress and attainment for the purpose of improvement. [13]

The ultimate authority in the University for the confirmation of academic decisions is the Senate, but for practical reasons, the Senate has delegated to the Faculty/School Boards the authority to confirm the decisions of Boards of Examiners provided these are made within the framework of the General Assessment Regulations. Recommendations from Board of Examiners which fall outside these Regulations shall be ratified by the APRC and reported to the Senate as necessary. 1

7.15 Assessment Methods 2

Students' performance in a subject can be assessed by continuous assessment and/or examinations, at the discretion of the individual subject offering department. Where both continuous assessment and examinations are used, the weighting of each in the overall subject grade shall be clearly stated in the Programme Requirement Document. The subject offering department can decide whether students are required to pass both the continuous assessment and examination components, or either component only, in order to obtain a subject pass, but this requirement (to pass both, or either, components) shall be specified in the Programme Requirement Document. Learning outcome should be assessed by continuous assessment and/or examination appropriately, in line with the outcome-based approach. 3

Continuous assessment may include tests, assignments, projects, laboratory work, field exercises, presentations and other forms of classroom participation. Continuous Assessment assignments which involve group work should nevertheless include some individual components therein. The contribution made by each student in continuous assessment involving a group effort shall be determined and assessed separately, and this can result in different grades being awarded to students in the same group. 4

Assessment methods and parameters of subjects shall be determined by the subject offering department. 5

At the beginning of each semester, the subject teacher should inform students of the details of the methods of assessments to be used, within the assessment framework as specified in the Programme Requirement Document. 6

7.16 Progression / Academic Probation / Deregistration 7

The Board of Examiners shall, at the end of each semester (except for Summer Term unless there are students who are eligible to graduate after completion of Summer Term subjects or the Summer Term study is mandatory for the programme), determine whether each student is 8

(i) eligible for progression towards an award; or 9

(ii) eligible for an award; or

(iii) required to be deregistered from the programme.

When a student has a Grade Point Average (GPA) lower than 1.70, he/she will be put on academic probation in the following semester. If a student is able to pull his/her GPA up to 1.70 or above at the end of the semester, the status of "academic probation" will be lifted. The status of "academic probation" will be reflected in the assessment result notification but not in the transcript of studies. 10

A student will have 'progressing' status unless he/she falls within any one of the following categories, which may be regarded as grounds for deregistration from the programme: 1

(i) the student has reached the final year of the normal period of registration for that programme, as specified in the Programme Requirement Document, unless approval has been given for extension; or 2

(ii) the student has reached the maximum number of retakes allowed for a failed compulsory subject; or

(iii) the student's GPA is lower than 1.70 for two consecutive semesters and his/her Semester GPA in the second semester is also lower than 1.70; or

(iv) the student's GPA is lower than 1.70 for three consecutive semesters

When a student falls within any of the categories as stipulated above, except for category (i) with approval for extension, the Board of Examiners shall de-register the student from the programme without exception. 3

A student may be de-registered from the programme enrolled before the time frame specified at (iii) or (iv) above if his/her academic performance is poor to the extent that the Board of Examiners deems that his/her chance of attaining a GPA of 1.70 at the end of the programme is slim or impossible. 4

The progression of students to the following academic year will not be affected by the GPA obtained in the Summer Term, unless Summer Term study is mandatory for all students of the programme and constitutes a requirement for graduation, and is so specified in the Programme Requirement Document. 5

If the student is not satisfied with the de-registration decision of the Board of Examiners, he/she can lodge an appeal. All such appeal cases will be referred directly to Academic Appeals Committee (AAC) for final decision. Views of Faculties/Schools/Departments will be sought and made available to AAC for reference. 6

7.17 Retaking of Subjects 7

Students may only retake a subject which they have failed (i.e. Grade F or S or U). Retaking of subjects is with the condition that the maximum study load of 21 credits per semester is not exceeded. 8

The number of retakes of a subject should be restricted to two, i.e., a maximum of three attempts for each subject is allowed. 9

In cases where a student takes another subject to replace a failed elective subject, the fail grade will be taken into account in the calculation of the GPA, despite the passing of the replacement subject. Likewise, students who fail a Cluster Area Requirement (CAR) subject may need to take another subject from the same Cluster Area in order to fulfill this part of the GUR, since the original CAR subject may not be offered; in such cases, the fail grade for the first CAR subject will be taken into account in the calculation of the GPA, despite the passing of the second CAR subject. Note 10

Students need to submit a request to the Faculty/School Board for the second retake of a failed subject. 11

Students who have failed a compulsory subject after two retakes and have been de-registered can submit an appeal to the Academic Appeals Committee (AAC) for a third chance of retaking the subject. 1

In case AAC does not approve further retakes of a failed compulsory subject or the taking of an equivalent subject with special approval from the Faculty, the student concerned would be de-registered and the decision of the AAC shall be final within the University. 2

Note: In these circumstances when students do not have a choice to retake a failed subject, such as when the failed subject has been phased out, a 'tie-subject' arrangement can be made with the approval of the Faculty Board. Under the arrangement, another appropriate subject can be taken as equivalent to the subject which is not offered. Upon passing the equivalent subject, the fail grade of the original subject will be replaced by the latest grade of the retake subject and the failure grade of the original subject will not be taken into account in the calculation of the GPA. 3

7.18 Absence from an assessment component 4

If a student is unable to complete all the assessment components of a subject, due to illness or other circumstances which are beyond his/her control and considered by the subject offering Department as legitimate, the Department will determine whether the student will have to complete a late assessment and, if so, by what means. This late assessment shall take place at the earliest opportunity, and normally before the commencement of the following academic year (except that for Summer Term, which may take place within 3 weeks after the finalisation of Summer Term results). If the late assessment cannot be completed before the commencement of the following academic year, the Faculty/School Board Chairman shall decide on an appropriate time for completion of the late assessment. 5

The student concerned is required to submit his/her application for late assessment in writing to the Head of Department offering the subject, within five working days from the date of the examination, together with any original supporting documents. Approval of applications for late assessment and the means for such late assessments shall be given by the Head of Department offering the subject or the subject teacher concerned, in consultation with the Programme Leader. Verification of the supporting documents with the issuing authority may be conducted by the subject offering Department as part of the approval process. 6

7.19 Aegrotat Award 7

If a student is unable to complete the requirements of the programme in question for the award due to very serious illness, or other very special circumstances which are beyond his/her control, and considered by the Board of Examiners as legitimate, the Faculty/School Board will determine whether the student will be granted an aegrotat award. Aegrotat award will be granted under very exceptional circumstances. 8

A student who has been offered an aegrotat award shall have the right to opt either to accept such an award, or request to be assessed on another occasion to be stipulated by the Board of Examiners; the student's exercise of this option shall be irrevocable. 9

The acceptance of an aegrotat award by a student shall disqualify him from any subsequent assessment for the same award. 10

An aegrotat award shall normally not be classified, and the award parchment shall not state that it is an aegrotat award. However, the Board of Examiners may determine whether the award should be classified, provided that they have adequate information on the students' academic performance. 11

7.20 Grading 1

Assessment grades shall be awarded on a criterion-referenced basis. A student's overall performance in a subject shall be graded as follows from 2020/21 onwards: 2

Subject grade	*Short description*	*Elaboration on subject grading description*
A+ A A-	Excellent	Demonstrates excellent achievement of intended subject learning outcomes by being able to skillfully use concepts and solve complex problems. Shows evidence of innovative and critical thinking in unfamiliar situations, and is able to express the synthesis or application of ideas in a logical and comprehensive manner.
B+ B B-	Good	Demonstrates good achievement of intended subject learning outcomes by being able to use appropriate concepts and solve problems. Shows the ability to analyse issues critically and make well-grounded judgements in familiar or standard situations, and is able to express the synthesis or application of ideas in a logical and comprehensive manner.
C+ C C-	Satisfactory	Demonstrates satisfactory achievement of intended subject learning outcomes by being able to solve relatively simple problems. Shows some capacity for analysis and making judgements in a variety of familiar and standard situations, and is able to express the synthesis or application of ideas in a manner that is generally logical but fragmented.
D+ D	Pass	Demonstrates marginal achievement of intended subject learning outcomes by being able to solve relatively simple problems. Can make basic comparisons, connections and judgments and express the ideas learnt in the subject, though there are frequent breakdowns in logic and clarity.
F	Fail	Demonstrates inadequate achievement of intended subject learning outcomes through a lack of knowledge and/or understanding of the subject matter. Evidence of analysis is often irrelevant or incomplete.

3

'F' is a subject failure grade, whilst all others ('D' to 'A+') are subject passing grades. No credit will be earned if a subject is failed. 4

Indicative descriptors for modifier grades 5

Main Grade (solid)	The student generally performed at this level, indicating mastery of the subject intended learning outcomes at this level.
+ (exemplary)	The student consistently performed at this level and exceeded the expectations of this level in some regards, but not enough to claim mastery at the next level.
- (marginal)	The student basically performed at this level, but the performance was inconsistent or fell slightly short in some regards.

6

Note: The above indicative descriptors for modifier grades are not applicable to the pass grades D and D+ 7

A numeral grade point is assigned to each subject grade. The grade points assigned to subject grades attained by students from 2020/21 are as follows: 1

Grade	*Grade Point for grades attained*
A+	4.3
A	4.0
A-	3.7
B+	3.3
B	3.0
B-	2.7
C+	2.3
C	2.0
C-	1.7
D+	1.3
D	1.0
F	0.0

2

At the end of each semester/term, a Grade Point Average (GPA) will be computed as follows, and based on the grade point of all the subjects: 3

$$\text{GPA} = \frac{\sum_{n=1}^{N} \text{Subject Grade Point}_n \times \text{Subject Credit Value}_n}{\sum_{n=1}^{N} \text{Subject Credit Value}_n}$$ 4

where N = number of all subjects (inclusive of failed subjects) taken by the student up to and including the latest semester/term. For subjects which have been retaken, only the grade point obtained in the final attempt will be included in the GPA calculation 5

In addition, the following subjects will be excluded from the GPA calculation: 6

(i) Exempted subjects
(ii) Ungraded subjects
(iii) Incomplete subjects
(iv) Subjects for which credit transfer has been approved, but without any grade assigned
(v) Subjects from which a student has been allowed to withdraw (i.e., those with the code 'W') 7

Subject which has been given an "S" code, i.e., absent from all assessment components, will be included in the GPA calculation and will be counted as "zero" grade point. GPA is thus the unweighted cumulative average calculated for a student, for all relevant subjects taken from the start of the programme to a particular point of time. GPA is an indicator of overall performance, and ranges from 0.00 to 4.30 from 2020/21. 8

All training credits will be counted in the GPA calculation but not in the WGPA calculation. 9

7.21 Different types of GPA 1

GPA's will be calculated for each Semester including the Summer Term. This Semester GPA will be used to determine students' eligibility to progress to the next Semester alongside with the 'cumulative GPA'. However, the Semester GPA calculated for the Summer Term will not be used for this purpose, unless the Summer Term study is mandatory for all students of the programme concerned and constitutes part of the graduation requirements. 2

The GPA calculated after the second Semester of the students' study is therefore a 'cumulative' GPA of all the subjects taken so far by students, and without applying any level weighting. 3

Along with the 'cumulative' GPA, a weighted GPA will also be calculated, to give an indication to the Board of Examiners on the award classification which a student will likely get if he/she makes steady progress on his/her academic studies. 4

When a student has satisfied the requirements for award, an award GPA will be calculated to determine his/her award classification. 5

For students taking the Major/Minor study route, a separate GPA will be calculated for their Major and Minor programmes. The Major GPA will be used to determine their award classification, which will be so reflected on the award parchment. The Minor GPA can be used as a reference for Board of Examiners to moderate the award classification for the Major, 6

For students taking the Major/Secondary Major study route, there is no separate "Secondary Major GPA". The Major GPA is the weighted GPA of all subjects contributing to the Major and Secondary Major. 7

The calculation methods of the different types of GPA are further explained in the table below. 8

Types of GPA	***Purpose***	***Rules for GPA calculation***
GPA	Determine Progression/ Graduation	(1) All academic subjects taken by the student throughout his/her study, both inside and outside the programme curriculum, are included in the GPA calculation. (2) For training subjects, including WIE and Clinical/Field subjects, departments can decide whether to include them in the GPA calculation. (3) For retake subjects, only the last attempt will be taken in the GPA calculation. (4) Level weighting, if any, will be ignored.
Semester GPA	Determine Progression	Similar to the rules for GPA as described above, except that only subjects taken in that Semester, including retaken subjects, will be included in the calculation.
Weighted GPA	To give an interim indication on the likely Award GPA	(1) Similar to the rules for GPA, except that only subjects inside the programme curriculum concerned will be included in the calculation. Subjects outside the programme curriculum will be excluded.

9

		(2) Departments can decide whether the training subjects are to be counted towards the Weighted GPA. (3) For retake subjects, only the last attempt will be taken in the Weighted GPA calculation. (4) A weighting of 2 for Level 1 and 2 subjects, and a weighting of 3 for Level 3 and above, will be included in the calculation to determine the Honours classifications for Bachelor's degree programmes. (5) The weighted GPA will be the same as the Award GPA unless a student has taken more subjects than required.
Major/Minor GPA	For reference and determination of award classification	*Major (including the Major/Secondary Major option) /Minor GPA* (1) Only subjects inside the curriculum of the Major/Minor Programmes will be taken in the Major/Minor GPA calculation. (2) Departments can decide whether the training subjects, are to be counted towards the Major/Minor GPA. (3) For retake subjects, only the last attempt will be taken in the Major/Minor GPA calculation. (4) Up to 6 credits from the Major/GUR [including Language Communication Requirements (LCR) subjects at proficiency level] can be counted towards the chosen Minor. Nevertheless, students must take at least 6 credits from their chosen Minor programme in order to satisfy the residential requirement of their chosen Minor. In addition, to be eligible for the Major and Minor awards, the total number of credits taken by the students for their Major-Minor studies must not be lower than the credit requirement of the single discipline Major programme. *Major GPA* Level weighting will be included in the calculation of Major GPA. *Minor GPA* Level weighting will <u>not</u> be included in the calculation of Minor GPA.
Award GPA	For determination of award classification	If the student has not taken more subjects than required, the Award GPA will be as follows: (1) For single Major: Award GPA = Weighted GPA (2) For Major/Minor programmes: Award GPA = Major GPA (3) For programmes without level weighting: Award GPA = GPA If the student has taken more subjects than required, refer to Section 7.23 below.

7.22 Guidelines for Award Classification [1]

The Weighted GPA will be used as a guide to help determine award classifications. [2]

Weighted GPA will be computed as follows: [3]

$$\text{Weighted GPA} = \frac{\sum_{n=1}^{N} \text{Subject Grade Point}_n \times \text{Subject Credit Value}_n \times W_n}{\sum_{n=1}^{N} \text{Subject Credit Value}_n \times W_n} \quad [4]$$

where W_n = weighting to be assigned according to the level of the subject [5]

N = number of all subjects counted in GPA calculation [6]

For calculating the weighted GPA (and award GPA) to determine the Honours classification of students who satisfy the graduation requirements of Bachelor's degree awards, a University-wide standard weighting will be applied to all subjects of the same level, with a weighting of 2 for Level 1 and 2 subjects and a weighting of 3 for Level 3 and above subjects. Same as for GPA, Weighted GPA ranges from 0.00 to 4.30 from 2020/21. [7]

Any subjects passed after the graduation requirement has been met or subjects taken on top of the prescribed credit requirements for award shall not be taken into account in the grade point calculation for award classification. However, if a student attempts more elective subjects (or optional subjects) than those required for graduation in or before the semester in which he/she becomes eligible for award, the elective subjects (or optional subjects), except for subjects which are selected by students to fulfill the free electives requirement for graduation, with a higher grade/contribution shall be included in the grade point calculation (i.e., the excessive subjects attempted with a lower grade/contribution, including failed subjects, will be excluded). [8]

For students who have completed a Major (including the Major/Secondary Major option)/Minor programme, a single classification will be awarded and their award classification will mainly be based on the "Major GPA", but it can be moderated by the Board of Examiners with reference to the "Minor GPA". For students who have completed a Major programme combined with free electives, their award classification will be determined by their "Major GPA" which includes grades obtained for the free electives, if appropriate. [9]

"Major GPA" is derived based on all subjects of the Major programme, as well as the Secondary Major programme, if any, including those meeting the mandatory General University Requirements (GUR) and programme-specific language requirement, but not necessarily including the training credits. [10]

"Minor GPA" is derived based on the 18 credits of specific Minor programme. "Minor GPA" is unweighted. [11]

The "Major GPA" and the "Minor GPA" will be presented separately to the Board of Examiners for consideration. The guidelines for determining award classification are applicable to programmes with Major (including the Major/Secondary Major option)/Minor studies. [12]

Where a student has a high GPA for his/her Major (including the Major/Secondary Major option) but a lower GPA for his/her Minor, he/she will not be 'penalised' in respect of his/her award classification, which is attached to the Major. On the other hand, if a student has a lower GPA for his/her Major (including the Major/Secondary Major option) than his/her GPA for the Minor, the Board of Examiners may consider recommending a higher award classification for the student for ratification by the APRC via the Faculty/School Board. [13]

7.23 Classification of Awards [1]

For Honours degree programmes, the awards will be classified as follows: [2]

- First Class Honours [3]
- Second Class Honours (Division 1)
- Second Class Honours (Division 2)
- Third Class Honours

The following are guidelines for Boards of Examiners' reference in determining award classifications: [4]

[5]

Honours Degrees	Guidelines
1st	The student's performance/attainment is outstanding, and identifies him/her as exceptionally able in the field covered by the programme in question.
2:i	The student has reached a standard of performance/attainment which is more than satisfactory but less than outstanding.
2:ii	The student has reached a standard of performance/attainment judged to be satisfactory, and clearly higher than the 'essential minimum' required for graduation.
3rd	The student has attained the 'essential minimum' required for graduation at a standard ranging from just adequate to just satisfactory.

Under exceptional circumstances, a student who has completed an Honours degree programme, but has not attained Honours standard, may be awarded a Pass-without-Honours degree. A Pass-without-Honours degree award will be recommended, when the student has demonstrated a level of final attainment which is below the 'essential minimum' required for graduation with Honours from the programme in question, but when he/she has nonetheless covered the prescribed work of the programme in an adequate fashion, while failing to show sufficient evidence of the intellectual calibre expected of Honours degree graduates. For example, if a student in an Honours degree programme has a Grade Point Average (GPA) of 1.70 or more, but his/her Weighted GPA is less than 1.70, he/she may be considered for a Pass-without-Honours classification. A Pass-without-Honours is an unclassified award, but the award parchment will not include this specification. [6]

Students who have committed academic dishonesty or non-compliance with examination regulations will be subject to the penalty of the lowering of award classification by one level. For undergraduate students who should be awarded a Third class Honours degree, they will be downgraded to a Pass-without-Honours. The minimum of downgraded overall result will be kept at a Pass. [7]

The followings are the award GPA ranges for determining award classifications: 1

Honours Degrees	Award GPA
1st	3.60 – 4.30
2:i	3.00 – 3.59
2:ii	2.40 – 2.99
3rd	1.70 – 2.39

2

Decisions by the Boards of Examiners on award classifications to be granted to each student on completion of the programme shall be ratified by the Faculty/School Board (of Examiners). For cases the decisions of which do not conform to the above indicative GPA range, they should be referred, by the Faculty/School Board (of Examiners), to the APRC for ratification. 3

7.24 Examination result announcements, transcripts, testimonials and references 4

At the end of each semester, where appropriate, examination results are announced online for individual students' checking. It provides information on subjects taken and grades attained, the Grade Point Average (GPA) for all subjects, and the overall result up to and including the latest semester. The announcement serves as an official notification of the student's academic performance. 5

A formal Transcript of Studies will be issued by the University, upon request, to any student registered on a programme offered by the University, and it will include the following information: 6

(i) name and student number; 7

(ii) title of the programme(s) on which enrolled, or from which graduated;

(iii) medium of instruction for the programme (applicable only to programmes which are delivered in Chinese and for which both Chinese and English versions are offered);

(iv) a full academic record, giving subjects taken and grades attained, and the Grade Point Average (GPA) for all subjects (this shall include any practical training undertaken which fulfill the training credit requirement of the programme concerned);

(v) credit requirement of the student if different from the normal credit requirement of the programme;

(vi) where relevant, the final award(s) (including information on the Secondary Major and/or Minor award, if appropriate), with classification and year of award;

(vii) a statement indicating that the student has completed the Work-integrated Education (WIE) activities / Healthy Lifestyle / e-learning course in Putonghua (offered as an option with effect from the 2018/19 intake cohort), as appropriate; and

(viii) information on the partner institution, if the award is for a dual degree/joint programme with another institution and leads to a dual/joint award.

Students may request for a testimonial which is a certification of their studies at the University, but without details on subjects and subject results. 8

Students may also request for references direct from academic staff members concerned. 9

7.25 Recording of disciplinary actions in students' records [1]

With effect from Semester One of 2015/16, disciplinary actions against students' misconducts will be recorded in students' records. [2]

Students who are found guilty of academic dishonesty or non-compliance with examination regulations will be subject to the penalty of having the subject result concerned disqualified and be given a failure grade with a remark denoting 'Disqualification of result due to academic dishonesty/noncompliance with examination regulations'. The remark will be shown in the students' record as well as the assessment result notification and transcript of studies, until their leaving the University. [3]

Students who have committed disciplinary offences (covering both academic and non-academic related matters) will be put on 'disciplinary probation'. The status of 'disciplinary probation' will be shown in the students' record as well as the assessment result notification, transcript of studies and testimonial during the probation period, until their leaving the University. The disciplinary probation is normally one year unless otherwise decided by the Student Discipline Committee. [4]

The University reserves the right to withhold the issuance of any certificate of study to a student/graduand who has unsettled matters with the University, or subject to is disciplinary action. [5]

Appendix II [1]

Secondary Major in Artificial Intelligence and Data Analytics (AIDA) [2]

1 Rationale for AIDA

Data has been characterised as the new oil; it is valuable only if it can be refined into a form that drives profitable and productive activity. Artificial intelligence and data analytics (AIDA) are undoubtedly the most prevailing technologies to carry out such a refinement process and are the most important driving forces in our data-driven society today. Through the rapid technological developments of the 21st Century, big data has become available, and with remarkable success in the past decade. AIDA is thus becoming a de-facto standard approach to enrich business, advance technology and achieve breakthroughs in virtually all fields. Therefore, it is essential for students to possess expertise in AIDA and other underpinning technologies.

PolyU is fully aware of the opportunities and challenges brought about by the new economy and the Fourth Industrial Revolution, and believes that it is indispensable for the next generation of workforce to possess expertise in AIDA and other underpinning technologies such as robotics, the Internet-of-Things (IoT), and blockchain, to name a few.

2 Aims and Objectives for AIDA

The AIDA Secondary Major is designed in response to the rapidly developing fields of artificial intelligence and data analytics that are currently gaining unprecedented traction in industry as well as generating demand for qualified professionals in the job market. By integrating within the major discipline of the student, this secondary major aims to produce the next generation of graduates skilled with AI computational thinking and data analytics acumen in their chosen discipline to meet the needs of society, help improve efficiencies and augment human capabilities.

This secondary major comprises interdisciplinary and integrated programmes to equip students with a strong foundation in computer science, statistics and mathematics, so as to nurture them to make use of AIDA techniques to solve contemporary problems in a discipline of their choice.

Each academic programme offering the option of this secondary major will incorporate a block of AIDA subjects (such as programming, mathematics, statistics, big data, AI and machine learning) into the study of the academic programme focusing on a particular discipline or domain. Students will complete their study within the normal programme duration and graduate with their respective bachelor's degree, equipped with technical skills related to AIDA, coupled with the domain knowledge from a block of subjects either specially designed, or chosen from the corresponding academic programme, in addition to the GUR subjects. An Integrated Capstone Project (ICP) will be included, with the aim of developing the capabilities of a student in analysing and solving complex and potential real-life problems, as well as training them in skills related to systematic development and documentation of a significant piece of work.

3 Programme's Intended Learning Outcomes (PILOs)

On successful completion of this secondary major in AIDA, students will be able to:

1. Understand the fundamentals of AIDA, and have the ability to apply them
2. Design AIDA systems, components and processes to meet given specifications and constraints
3. Identify, formulate and solve problems relevant to AIDA
4. Use modern IT tools appropriate to AIDA practice.
5. Know the contemporary issues, and understand the impact of AIDA solutions in a global and societal context.

4 Selection Mechanism

Studying a Secondary Major is a free choice by students and not mandatory. Only students with a Cumulative GPA of 2.70 or above may be considered for Secondary Major enrolment. Students must apply to and obtain approval from their programme offering Department, no later than the commencement of the second year of study, to be admitted to the Secondary Major.

5 Programme Structure and Curriculum

5.1 Credit Requirement for Secondary Major in AIDA

Credit requirement for the graduation of BEng (Hons) in Electrical Engineering plus the Secondary Major in Artificial Intelligence and Data Analytics.

Major in Electrical Engineering Requirements	84 academic credits (Compulsory: 75 credits and Elective: 9 credits)
Training Requirements	11 training credits
Secondary Major Requirements	36 academic credits*
General University Requirements	27 academic credits
Free Elective	6 academic credits
Total Credit Requirements	153 academic credits and 11 training credits

* Secondary Major Requirements included 12 double counted credits and 6 double fulfilment credits for both Major in EE and Secondary Major in AIDA.

5.2 Programme Structure

The programme structure of the Secondary Major in Artificial Intelligence and Data Analytics (AIDA) is as follows:

Artificial Intelligence and Data Analytics (AIDA)	**Credits**
Core	30
Mathematics I for AIDA	(3)
Mathematics II for AIDA	(3)
Programming I: Programming Fundamentals	(3)
Programming II: Data Structures and Algorithms	(3)
Fundamentals of Data Analytics	(3)
Machine Learning	(3)
Artificial Intelligence	(3)
DSR-AIDA Bridging Subject	(3)
Integrated Capstone Project	(6)
Electives	6
Total	**36**

5.3 Progression Pattern [1]

BEng (Hons) in Electrical Engineering with a Secondary Major in Artificial Intelligence and Data Analytics [2]

Year 1 (31 academic credits + 2 training credits) [3]			
Semester 1 (16 credits + 1 training credit)		**Semester 2** (15 credits + 1 training credit)	
AMA1110	Basic Mathematics I – Calculus and Probability & Statistics (3)*	ELCXXXX	English LCR Subject 2 (3)
APSS1L01	Tomorrow's Leaders (3)	ENG2002	Computer Programming (3)*
EIE1005	Fundamental AI and Data Analytics (2)	CAR I	Cluster-Area Requirement subject 1 (3)
ELCXXXX	English LCR Subject 1 (3)	Free Elective 1 (3)	
ENG1004	Engineering Professionals in Society I (1)		
MM1031	Introduction to Innovation and Entrepreneurship (1)		
Two Faculty Electives should be taken in Year 1			
AP10006	Physics II (3) [EE]	AMA1120	Basic Mathematics II – Calculus and Linear Algebra (3) [EE]
ENG2003	Information Technology (3)	AP10005	Physics I (3)
EEE2103 Applied Engineering Fundamentals (2 training credits)			
Healthy Lifestyle (non-credit bearing)			
Year 2 (34 academic credits + 6 training credits)			
Semester 1 (18 credits + 1 training credit)		**Semester 2** (16 credits + 1 training credit)	
AMA2111	Mathematics I (3)*	AMA2112	Mathematics II (3)
CLC1104P	Chinese LCR Subject (3)	DSAI2201	Data Structures and Algorithms (3)
EE2002	Circuit Analysis (3)	EEE1001	Industrial Placement Fundamentals (1)
EIE1003	Foundations of Data Science (3)	EE2003	Electronics (3)
ENG2001	Fundamentals of Materials Science and Engineering (3)[+]	EE2004	Electrical Energy Systems Fundamentals (3)
At least Two of the following Major subjects should be taken in Year 2			
AMA1120	Basic Mathematics II – Calculus and Linear Algebra (3)	AP10006	Physics II (3)
AP10005	Physics I (3) [EE]	ENG2003	Information Technology (3) [EE]
EEE2106	MATLAB for Engineers and Scientists (1 training credit)	EEE2107	BIM Basic and Electrical System (1 training credit)
Semester 3: EEE2108 Electrical Engineering Practice (4 training credits)			
Year 3 (35 academic credits + 3 training credits)			
Semester 1 (18 credits)		**Semester 2** (17 credits)	
COMP4431	Artificial Intelligence (3)	EE3003	Power Electronics and Drives (3)
EE3001	Analogue and Digital Circuits (3)	EE3004	Power Transmission and Distribution (3)
EE3002	Electromechanical Energy Conversion (3)	EE3008	Linear Systems and Signal Processing (3)
EE3005	Systems and Control (3)	EE3009	Electrical Services in Buildings (3)
EE3006	Analysis Methods for Engineers (3)	EIE3124	Fundamentals of Machine Intelligence (3)
EE3007	Computer System Principles (3)	ELC3531	Professional Communication in English for Engineering Students (2)
Semester 3: EEE3102 Industrial Placement (3 training credits)			
Year 4 (35 academic credits)			
Semester 1 (16.5 credits)		**Semester 2** (18.5 credits)	
At least Two Level-4 electives should be taken		ENG3006	Engineering Professionals in Society II (2)
EE4003	Electrical Machines (3)	*Two electives (AIDA) from Table 5.4.2 should be taken*	
EE4004	Power Systems (3)	Elective (AIDA) 1 (3)	
EE4007	Advanced Power Electronics (3)	Elective (AIDA) 2 (3)	
EE4014	Intelligent Systems Applications in Electrical Engineering (3)* (Advanced Elective (EE) 1)	Free Elective 2 (3)	
CAR III	Cluster-Area Requirement subject 3 (3)	CAR II	Cluster-Area Requirement subject 2 (3)
EE4023 Integrated Capstone Project (6)**			
Service-Learning (3)			

Table 5.3.1 Progression Pattern for BEng (Hons) in Electrical Engineering with a Secondary Major in Artificial Intelligence and Data Analytics [4]

Total Credits Required for Graduation: 135 academic credits + 11 training credits

Remarks: 1

AIDA Subjects 2

* Double counted subjects for both Major in EE and Secondary Major in AIDA: 3

(a) AMA1110 Basic Mathematics I – Calculus and Probability & Statistics 4
(b) AMA2111 Mathematics I
(c) ENG2002 Computer Programming
(d) EE4014 Intelligent Systems Applications in Electrical Engineering

** Double fulfilment subjects for both Major in EE and Secondary Major in AIDA: 5

(a) EE4023 Integrated Capstone Project 6

EE Preferred subject selection for BEng (Hons) Scheme in EE and BEng (Hons) in EE. AP10006 Physics II and AMA1120 Basic Mathematics II will be pre-assigned for students of BEng (Hons) Scheme in EE in Year 1. AP10005 Physics I and ENG2003 Information Technology will be pre-assigned for students of BEng (Hons) in EE in Year 2. 7

\+ Students may choose one subject from (a) to (f) listed below: 8

Engineering Materials++: (a) ENG2001 Fundamentals of Materials Science and Engineering 9
Biology: (b) ABCT1101/ABCT1D04 Introductory Life Science
(c) ABCT1303/ABCT1D03 Biotechnology and Human Health
(d) BME11101/BME1D01 Bionic Human and the Future of Being Human
Chemistry: (e) ABCT1301/ABCT1D01 Chemistry and Modern Living
(f) ABCT1314/ABCT1D14 Chemistry and Sustainable Development

++ ENG2001 will be pre-assigned for students of BEng (Hons) in EE. 10

5.4 List of Core and Elective Subjects for Secondary Major in AIDA 11

Below are the tables summarising the core and elective subjects. 12

Core Subjects	Subject code and title	Credits
Mathematics I for AIDA:	AMA1110 Basic Mathematics I – Calculus and Probability & Statistics	3
Mathematics II for AIDA:	AMA2111 Mathematics I	3
Programming I: Programming Fundamentals:	ENG2002 Computer Programming	3
Programming II: Data Structures and Algorithms:	DSAI2201 Data Structures and Algorithms	3
Fundamentals of Data Analytics:	EIE1003 Foundations of Data Science	3
Machine Learning:	EIE3124 Fundamentals of Machine Intelligence	3
Artificial Intelligence:	COMP4431 Artificial Intelligence	3
DSR-AIDA Bridging Subject:	EE4014 Intelligent Systems Applications in Electrical Engineering	3
Integrated Capstone Project:	EE4023 Integrated Capstone Project	6

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Table 5.4.1 Core Subjects 14

List of Electives (AIDA)	
AAE4009	Data Science and Data-driven Optimisation in Airline and
AAE4011	Airport Operations
AMA3201	Artificial Intelligence in Unmanned Autonomous Systems
AMA3602	Computational Methods
AMA3640	Applied Linear Models for Finance Analytics
AMA3820	Statistical Inference
AMA4602	Operations Research Methods
AMA4650	High Dimensional Data Analysis
AMA4670	Forecasting and Applied Time Series Analysis
AMA4688	Simulation
AMA4840	Decision Analysis
AMA4850	Optimization Methods
AP40012	Machine Learning in Physics
AP40013	Energy Conversion and Storage with Machine Learning
BME34145	AIDA for Health Care and Smart Ageing
BME44144	AIDA for Biosignal Processing and Medical Imaging
BRE368	AI and Data Analytics for Smart Construction
BSE458	Building Performance Diagnosis and Management
BSE4610	Building Informatics
CBS3410	Python for Language Analytics
CBS4702	Advanced Topics in Quantitative Language Studies
CBS4703	Social Media and Social Network Analysis
CBS4704	Workshop on Language Analytics
CBS4844	Machine Aided Translation
CBS4954	Statistics for Language Studies
CBS4958	Fundamentals of Computational Linguistics
CBS4962	Corpus and Language Technology for Language Studies
COMP4436	Artificial Intelligence of Things
COMP4442	Service and Cloud Computing
CSE30313	Machine Learning Practice in Smart Mobility
DSAI4205	Big Data Analytics
EE3013	Transportation Data Analytics
EIE4121	Machine Learning in Cyber-security
EIE4122	Deep Learning and Deep Neural Networks
ENGL4022	Quantitative Literacy for Language Professionals
ENGL4026	Language and Social Data Analytics
HTI3990	Big Data Analytics for Bioinformatics and Genomic Medicine
HTI4990	AIDA in Clinical Diagnosis and Radiotherapy
HTM4350	Big Data Analytics in Hospitality, Tourism and Events
HTM4364	Social Media and Digital Marketing Analytics
ISE3011	Applied Quality and Reliability with AIDA
ISE3017	Applied AIDA in Operations Research and Management
SFT403FI	Smart Textiles for Wearable Applications
SFT412FB	Fashion Market Intelligence
SFT303AF	AI in Fashion Business
LSGI3220	Building Information Modelling & 3D GIS
LSGI3801	GeoAI
LSGI3802	Spatial Data Science
LSGI3803	Spatial Data Analytics and Mining
LSGI3804	Urban Big Data Analytics
LSGI3805	Urban Sensing for Smart City
ME41006	Perceptual Robotics
ME42001	Artificial Intelligence in Products
ME42011	Fundamentals of Robotics
SD4772	Interactive Media and Marketing

Table 5.4.2 Electives

6 Subject Description Forms

The latest subject description forms can be viewed at https://www.polyu.edu.hk/comp/study/ug-programmes/aida/curriculum/

The departments reserve the right to revise and update the syllabi whenever appropriate and deemed necessary.

7 Award Classification

For students who have completed a Major (including the Major/Secondary Major option)/Minor programme, a single classification will be awarded and their award classification will mainly be based on the "Major GPA", but it can be moderated by the Board of Examiners with reference to the "Minor GPA". For students who have completed a Major programme combined with free electives, their award classification will be determined by their "Major GPA" which includes grades obtained for the free electives, if appropriate.

"Major GPA" is derived based on all subjects of the Major programme, as well as the Secondary Major programme, if any, including those meeting the mandatory General University Requirements (GUR) and programme-specific language requirement, but not necessarily including the training credits.

"Minor GPA" is derived based on the 18 credits of specific Minor programme. "Minor GPA" is unweighted.

The "Major GPA" and the "Minor GPA" will be presented separately to the Board of Examiners for consideration. The guidelines for determining award classification are applicable to programmes with Major (including the Major/Secondary Major option)/Minor studies.

Where a student has a high GPA for his/her Major (including the Major/Secondary Major option) but a lower GPA for his/her Minor, he/she will not be 'penalised' in respect of his/her award classification, which is attached to the Major. On the other hand, if a student has a lower GPA for his/her Major (including the Major/Secondary Major option) than his/her GPA for the Minor, the Board of Examiners may consider recommending a higher award classification for the student for ratification by the APRC via the Faculty/School Board.

Aug 2025