1. GENERAL INFORMATION

1.1 Cohort of Intakes and readership

This programme booklet is the definitive programme document for the 2014/15 cohort. Just in case any updated information is necessary after the publication of this booklet, students are requested to refer to the URL "http://www.eie.polyu.edu.hk/prog/beng_4-year.html" for the most updated information. Should there be any discrepancy between the contents of this booklet and University regulations, University regulations always prevail.

1.2 Programme Information

Title of Programme	**Bachelor of Engineering (Honours) in Electronic and Information Engineering**
Host Department	Department of Electronic and Information Engineering (EIE)
Programme Structure	Credit-based
Final Award	Bachelor of Engineering (Honours) in Electronic and Information Engineering 電子及資訊工程學(榮譽)工學士
Mode of Attendance	Full-time
Professional Recognition	This programme satisfies the academic requirements for Corporate Membership of the Hong Kong Institution of Engineers (HKIE).

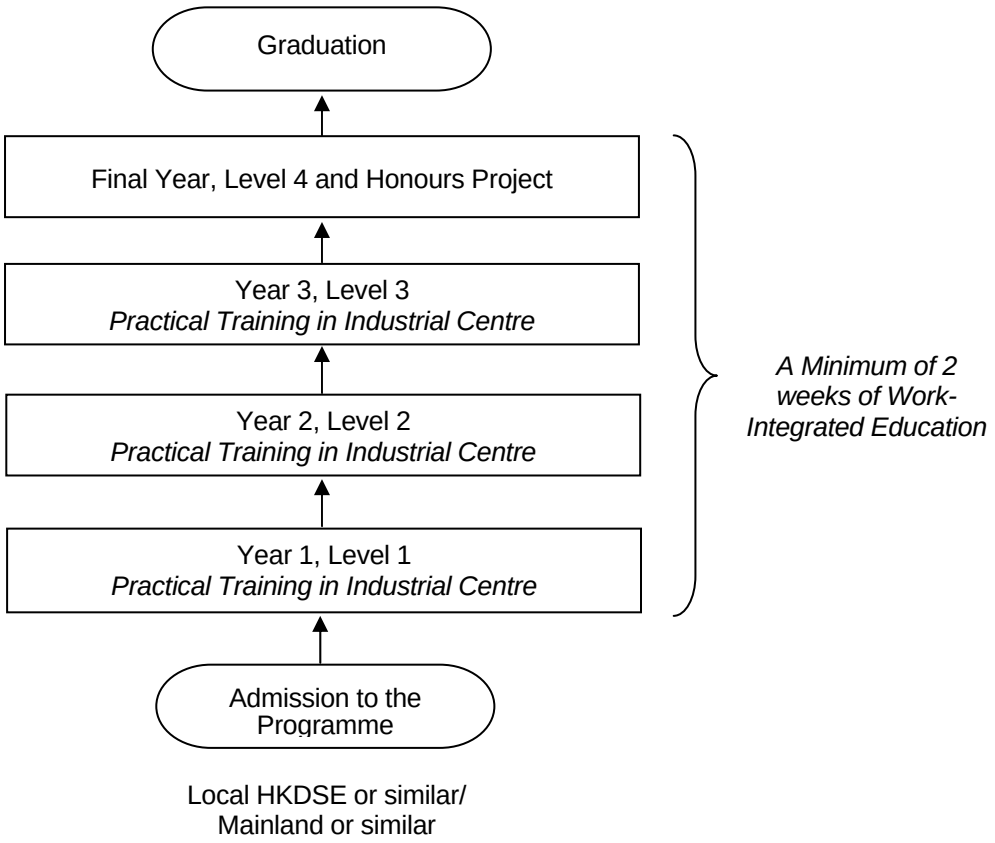
Duration	Normal Year 1 Intake Full-time Mode: 4 years nominal, 8 years maximum Senior Year Intake Full-time Mode: 2 years nominal, 4 years maximum
Total Credits for Graduation (Academic Credits + Training Credits + WIE Training Credit)	Academic Credits: • Normal Year 1 Intake: - HKDSE students who have Level 2 or above in HKDSE Physics or Combined Science with Physics, and non-local students from the Chinese Mainland who have a Pass (a pass is taken as 60% of the total marks of the subject) in the Physics or Integrated Science subject in the Joint Entrance Examination for Universities: 124 credits - HKDSE students who do not have Level 2 or above in HKDSE Physics or Combined Science with Physics, and non-local students from the Chinese Mainland who do not have a Pass (a pass is taken as 60% of the total marks of the subject) in the Physics or Integrated Science subject in the Joint Entrance Examination for Universities: 127 credits • Senior Year Intake: 67 credits Training Credits: 8 (for all intakes) Work-Integrated Education Training Credit: 1 (for all intakes)

1.3 Modes of Attendance

A mode of study is characterized by the credits and subjects required and the progression pattern in Year 1 to Year 4 (or in Year 1 to Year 2 for Senior Year Intake).

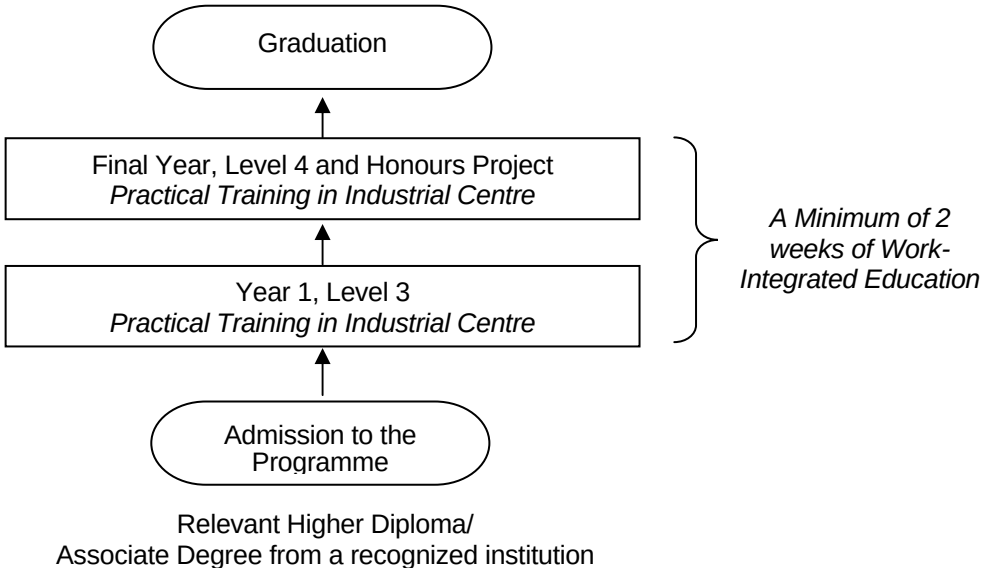
Normal Year 1 Intake Full-time Mode

Under this mode, the students will normally pursue their study by going through Year 1, Year 2, Year 3 and Year 4 in full time and then graduate at the end of Year 4 after having satisfied all programme requirements.



Senior Year Intake Full-time Mode

Under this mode, senior year students will normally pursue their study by going through Year 1 and Year 2 in full time and then graduate at the end of Year 2 after having satisfied all programme requirements.



1.4 In addition to pursuing the BEng(Hons) in Electronic and Information Engineering as a Major, students studying in the Normal Year 1 Intake Full-time Mode may apply to study for an additional Minor. However, the additional Minor option is not available to students studying in the Senior Year Intake Full-time Mode.

2. RATIONALE, AIMS AND INTENDED LEARNING OUTCOMES OF THE PROGRAMME

2.1 Background and Rationale

Electronic and information engineering are among the key technologies that play important roles in daily living. Various sectors, such as business, commerce, communication, education, entertainment, healthcare and transportation, require electronic and information engineering for smooth operation. Hence, it is envisioned that there is a great need of professionals who exercise knowledge and leadership in the areas of electronic and information engineering, as well as generic skills of problem solving, innovation, analysis and adaptability to contribute to the technological and economic development in the region and in the world.

2.2 Aims

This Programme aims at producing graduates with:

1. a wide range of professional knowledge and skills relevant to electronic and information engineering,
2. creativity and innovation,
3. adaptability to changing technology and society, and
4. all-rounded attributes.

2.3 Relationship of Programme Aims to University Missions

The University has the following missions:

1. To nurture graduates who are critical thinkers, effective communicators, innovative problem solvers, lifelong learners and ethical leaders.
2. To advance knowledge and the frontiers of technology to meet the changing needs of society.
3. To support a University community in which all members can excel through education and scholarship.

The following table illustrates the relationship between Programme Aims and University Missions:

Programme Aims	University Missions		
	1	2	3
1	X	X	X
2	X	X	
3	X	X	
4	X		X

2.4 Institutional Learning Outcomes

It is PolyU's educational mission to nurture competent professionals who are also critical thinkers, effective communicators, innovative problem solvers, lifelong learners, and ethical leaders. The institutional learning outcomes for these attributes are provided as follows:

1. **Competent professional:** Graduates should be able to integrate and apply in practice the fundamental knowledge and skills required for functioning effectively as entry-level professionals.
2. **Critical thinker:** Graduates should be able to examine and critique the validity of information, arguments, and different viewpoints, and reach a sound judgment on the basis of credible evidence and logical reasoning.
3. **Effective communicator:** Graduates should be able to comprehend and communicate effectively in English and Chinese, orally and in writing, in professional and daily contexts.
4. **Innovative problem solver:** Graduates should be able to identify and define problems in professional and daily contexts, and produce creative and workable solutions to the problems.
5. **Lifelong learner:** Graduates should recognise the need for continual learning and self-development, and be able to plan, manage and improve their own learning in pursuit of self-determined development goals.
6. **Ethical leader:** Graduates should have an understanding of leadership and be prepared to lead a team, and should acknowledge their responsibilities as professionals and citizens to society and their own nation, and be able to demonstrate ethical reasoning in professional and daily contexts.

2.5 Intended Learning Outcomes of the Programme

On successful completion of the BEng(Hons) in Electronic and Information Engineering programme, students will be able to:

Category A Professional/Academic Knowledge and Skills

1. Understand the fundamentals of science and engineering, and have the ability to apply them.
2. Design and conduct experiments, as well as to evaluate the outcomes.
3. Design systems, components and processes to meet given specifications and constraints.
4. Identify, formulate and solve problems relevant to EIE.
5. Use modern engineering/IT tools appropriate to EIE practice.
6. Know the contemporary issues, and understand the impact of engineering solutions in a global and societal context.

Category B Attributes for All-roundedness

7. Work with others collaboratively in a team and have a knowledge of leadership.
8. Recognize social, professional and ethical responsibility.
9. Communicate effectively.
10. Recognize the need for life-long learning.
11. Participate in creative activities.

2.6 Relationship of Programme Outcomes to Programme Aims

The following table illustrates the relationship between Programme Outcomes and Programme Aims:

Programme Outcomes	Programme Aims			
	1	2	3	4
1	X		X	
2	X	X	X	
3	X	X	X	
4	X	X	X	
5	X		X	
6	X		X	X
7				X
8	X		X	X
9				X
10			X	X
11		X		X

2.7 Relationship of Intended Learning Outcomes of the Programme to Institutional Learning Outcomes

The following table illustrates the relationship between Intended Learning Outcomes of the Programme and Institutional Learning Outcomes:

Programme Outcomes	Institutional Learning Outcomes					
	1	2	3	4	5	6
1	X					
2	X	X				
3	X	X				
4	X			X		
5	X					
6	X	X				X
7						X
8						X
9			X			
10					X	
11				X		

3. ENTRANCE REQUIREMENTS

For non-local students who enter this Programme by following a different education system from that in Hong Kong, they must possess the non-local qualifications for meeting the general entrance requirements for Bachelor Degree Programmes as published by the University.

For students who enter this programme by following the Hong Kong Diploma of Secondary Education (HKDSE) system or other local qualifications, they must satisfy both the University general minimum entrance requirements AND the programme-specific requirements as set out below.

3.1 University General Minimum Entrance Requirements

3.1.1 For those applying on the basis of HKDSE:

- 4 core subjects and 1 elective subject with
  - Level 3: English Language and Chinese Language
  - Level 2: Mathematics, Liberal Studies and one elective subject

3.1.2 For those applying on the basis of other local qualifications:

- An appropriate Diploma (as specified in section 3.2 below) passed with credit or a Higher Certificate (as specified in section 3.2 below) from a recognised institution; OR
- An appropriate Associate Degree/Higher Diploma from a recognised institution (suitable candidates will be considered for advanced standing entry to the senior year curriculum).

3.1.3 Other local/non-local qualifications deemed to be acceptable for admission purpose:

The University accepts attainments in HKALE / HKASLE, GCEALE / GCEASLE and IB for admission to its 4-year degree programmes. Applicants holding A-Level and IB qualifications will be granted credit transfer upon admission.

3.2 Programme-specific Minimum Entrance Requirements

3.2.1 For those applying on the basis of HKDSE:

- Level 2 in the elective subject, preferably Physics, Biology, Chemistry, Combined Science or Information and Communication Technology

3.2.2 For those applying on the basis of other qualifications:

- An Associate Degree, Higher Diploma, Higher Certificate or Diploma (with Credit) in Engineering, Electronic Engineering, Information Engineering, Communication Engineering, Electrical Engineering, Computer Engineering or other similar disciplines.

3.2.3 For those applying on the basis of "advanced standing" status:

- Holders of Associate Degree/Higher Diploma in Electronic (and Information) Engineering, Electrical Engineering or other similar disciplines may be given credit transfer.

3.3 Admission of Advanced Standing Students Based On Advanced Academic Qualifications

(i) With approval by the Faculty, students may be admitted to the Programme beyond the initial stage provided they have demonstrably reached the general level of educational development which would have been reached had they taken the earlier stage(s) of the Programme, and provided that there is a high probability that they will complete the Programme successfully. These students will still be labelled as first year students even though they are following the curriculum of a later stage.

(ii) Students admitted on the basis of IB/A-Level qualifications via the advanced standing admission route will be given credit transfer up to a maximum of 25% of the credit requirement for a 4-year degree programme, including 6 credits for the Cluster Area Requirement (CAR) and 3 credits for Freshmen Seminar or University English, depending on students' previous study and result. Any further credit transfer on the remaining CAR or discipline-specific subjects will be decided by the programme host department.

(iii) The number of credits which a student is required to complete for the award concerned will be determined at the time of admission, and no later than the end of the subject add/drop period.

(iv) Information on the number of credits required for normal entry and for the individual students based on their admission qualifications will both be reflected on the transcripts of study.

(v) If students who are admitted to the programme via the above-mentioned admission route wish to gain higher grades by studying the subject(s) again, they may approach their programme offering Department for declining the provision of taking fewer credits no later than the end of the add/drop period.

(vi) Students who, upon admission, wish to transfer any credits from their previous studies, and take fewer credits than those confirmed at the time of admission, will have to follow the procedures for "application for credit transfer" and to pay the related fees. The credits to be transferred are subject to the rule on validity period for subject credits.

4. PROGRAMME, SUBJECTS, AND CREDITS

4.1 Programme Specified Subjects

Most subjects to be studied at Year 1, Year 2, Year 3 and Year 4 are of standard credit value carrying 3 credits each, except for some subjects, such as Integrated Project, Honours Project, Professional Communication, etc. which carry credits other than 3. A student is expected to spend about 35 to 45 hours of study (inclusive of class contact and other study effort) to earn a credit. Table 4.1 lists the subjects, their credit values, and the category they belong to (Compulsory or Elective). All discipline-specific subjects shown as compulsory are non-deferrable and must be taken in accordance to the progression pattern. The subjects offered will be updated from time to time according to the need of society and the profession.

Students are required to complete a minimum of 124 or more academic credits to satisfy the degree requirements. The exact minimum number of academic credits required will depend on the academic background of the students. The subjects contributing to the 124 academic credits are listed in Table 4.1. However, they may choose to take additional subjects beyond the basic requirements. Please refer to Section 25 for detailed information on the requirements for graduation.

Table 4.1 Subjects Category and Credits

Year 1, Year 2, Year 3 and Year 4 Curricula

Subject Code	Subject Title	CR	Category of Subjects	
			Normal Year 1 Intake	Senior Year Intake
General University Requirements (GUR)				
-	Cluster-Area Requirement I (CAR I)	3	COM	COM
-	Cluster-Area Requirement II (CAR II)	3	COM	COM
-	Cluster-Area Requirement III (CAR III)	3	COM	-
-	Cluster-Area Requirement IV (CAR IV)	3	COM	-
-	Language and Communication Requirement I (LCR I) – English *	3	COM	-
-	Language and Communication Requirement II (LCR II) – English *	3	COM	-
-	Language and Communication Requirement III (LCR III) – Chinese *	3	COM	-
-	Leadership and Intra-Personal Development	3	COM	-
-	Service-Learning	3	COM	COM
ENG1003	Freshman Seminar for Engineering	3	COM	-
-	Healthy Lifestyle	0	COM	COM

Discipline-Specific Requirement (DSR)				
AF3625	Engineering Economics	3	COM	COM
AMA1110	Basic Mathematics I – Calculus and Probability & Statistics	3	COM	-
AMA1120	Basic Mathematics II –Calculus and Linear algebra	3	COM	-
AMA2104	Probability and Engineering Statistics	3	COM	COM
AMA2111	Mathematics I	3	COM	-
AMA2112	Mathematics II	3	COM	-
AP10001	Introduction to Physics	3	COM(1)	-
AP10005	Physics I	3	COM	-
AP10006	Physics II	3	COM	-
CBS3241	Professional Communication in Chinese	2	COM	COM
EIE2100	Basic Circuit Analysis	3	COM	-
EIE2102	Basic Electronics	3	COM	-
EIE2211	Logic Design	3	COM	-
EIE3100	Analogue Circuit Fundamentals	3	COM	COM
EIE3105	Integrated Project	6	COM (Select any 1 subject out of these 2 subjects)	COM (Select any 1 subject out of these 2 subjects)
ENG3002	Multidisciplinary Project	6		
EIE3109	Mobile Systems and Application Development	3	ELE	ELE
EIE3110	Research Methodology	3	ELE	ELE
EIE3112	Database System	3	ELE	ELE
EIE3305	Integrated Analogue and Digital Circuits	3	ELE	ELE
EIE3306	IC Technology and Processes	3	ELE	ELE
EIE3311	Computer System Fundamentals	3	COM	COM
EIE3312	Linear Systems	3	COM	COM
EIE3320	Object-Oriented Design and Programming	3	ELE	ELE
EIE3331	Communication Fundamentals	3	COM	COM
EIE3333	Data and Computer Communications	3	ELE	ELE
EIE3338	Applied Electromagnetics	3	ELE	ELE
EIE4100	Computer Vision and Pattern Recognition	3	ELE	ELE
EIE4102	IP Networks	3	ELE	ELE
EIE4103	Mobile Computer System Architecture	3	ELE	ELE
EIE4104	Mobile Networking	3	ELE	ELE
EIE4105	Multimodal Human Computer Interaction Technology	3	ELE	ELE
EIE4106	Network Management and Security	3	ELE	ELE
EIE4107	Wireless Communications	3	ELE	ELE
EIE4108	Distributed Systems and Cloud Computing	3	ELE	ELE
EIE4110	Introduction to VLSI and Computer-Aided Circuit Design	3	ELE	ELE
EIE4111	Advanced VLSI and Computer-Aided Circuit Design	3	ELE	ELE
EIE4402	Power Electronics	3	ELE	ELE
EIE4413	Digital Signal Processing	3	COM	COM
EIE4414	Computer Architecture and Systems	3	ELE	ELE
EIE4415	Multimedia Technology	3	ELE	ELE

EIE4432	Web Systems and Technologies	3	ELE	ELE
EIE4433	Honours Project	6	COM	COM
EIE4435	Image and Audio Processing	3	ELE	ELE
EIE4448	Bioengineering Signals and Systems	3	ELE	ELE
EIE4449	Optical Communication Systems and Networks	3	ELE	ELE
EIE4450	Nanoscience and Technology for Electronic Engineering	3	ELE	ELE
EIE4451	Circuits for Telecommunications	3	ELE	ELE
ELC3521	Professional Communication in English	2	COM	COM
ENG2001	Fundamentals of Materials Science and Engineering	3	COM(2) (Select any 1 subject out of these 6 subjects)	-
ABCT1101	Introductory Life Science	3		
ABCT1301	Chemistry and Modern Living	3		
ABCT1302	Chemistry and Sustainable Development	3		
ABCT1303	Biotechnology and Human Health	3		
BME11101	Bionic Human and the Future of Being Human	3		
ENG2002	Computer Programming	3	COM	-
ENG2003	Information Technology	3	COM	-
ENG3003	Engineering Management	3	COM	COM
ENG3004	Society and The Engineer	3	COM	COM
ENG4001	Project Management	3	ELE	ELE
IC2114	Industrial Centre Training I for EIE	5	TRN	TRN
IC3114	Industrial Centre Training II for EIE	3	TRN	TRN

Note:

CBS Department of Chinese and Bilingual Studies
COM Compulsory
ELC English Language Centre
ELE Elective
TRN Training

* Details of the Language and Communication Requirement (LCR) are set out in Section 4.2.

(1) For HKDSE students who do not have Level 2 or above in HKDSE Physics or Combined Science with Physics, and non-local students from the Chinese Mainland who do not have a Pass (a pass is taken as 60% of the total marks of the subject) in the Physics or Integrated Science subject in the Joint Entrance Examination for Universities only.

(2) Students should choose 1 subject in either "Engineering Materials", "Biology" or "Chemistry":

Engineering Materials: ENG2001 Fundamentals of Materials Science and Engineering
Biology: ABCT1101 Introductory Life Science
ABCT1303 Biotechnology and Human Health
BME11101 Bionic Human and the Future of Being Human
Chemistry: ABCT1301 Chemistry and Modern Living
ABCT1302 Chemistry and Sustainable Development

Students choosing any one of the five subjects in the "Biology" and "Chemistry" areas will have the subject double-counted towards the fulfilment of both the Discipline-Specific Requirement (DSR) and CAR-D (Science, Technology and Environment). They are required to choose any 3-credit subject (from level 1 to level 4) to make up for the total credit requirement.

Subject to the approval by the Programme Leader, students may take at most one Level 5 subject per semester as a final-year technical elective during their final year of study. The total number of Level 5 subjects taken shall not exceed 2. The following is the list of Level 5 subjects currently available.

Subject Code	Subject Title	CR	Category of Subjects
EIE507	Network Design - Theory and Practice	3	ELE
EIE509	Satellite Communications - Technology and Applications	3	ELE
EIE511	VLSI System Design	3	ELE
EIE522	Pattern Recognition: Theory & Applications	3	ELE
EIE528	Digital Data Transmission	3	ELE
EIE529	Digital Image Processing	3	ELE
EIE531	Mobile Radio Communications	3	ELE
EIE536	High Speed Networks	3	ELE
EIE541	Digital Signal Processing	3	ELE
EIE545	Consumer Electronics	3	ELE
EIE546	Video Technology	3	ELE
EIE552	Internet Technologies for Multimedia Applications	3	ELE
EIE553	Security in Data Communication	3	ELE
EIE555	Personal Networking Technology	3	ELE
EIE556	Advanced DSP for Multimedia Communications	3	ELE
EIE557	Computational Intelligence and its Applications	3	ELE
EIE558	Speech Processing and Recognition	3	ELE
EIE559	CDMA Spread Spectrum Communications and Its Applications	3	ELE
EIE563	Digital Audio Processing	3	ELE
EIE565	Advanced Multimedia Technology	3	ELE
EIE576	Information Technology in Biomedicine	3	ELE
EIE577	Optoelectronic Devices	3	ELE
EIE578	CMOS Analog Integrated Circuits Design and Analysis	3	ELE
EIE579	Advanced Telecommunication Systems	3	ELE

4.2 Language and Communication Requirements (LCR)

Students are required to fulfil the four major components of the overall English and Chinese language requirements below in order to be eligible for graduation:

(i) Language and Communication Requirements (LCR) in English (6 credits) and Chinese (3 credits), as stated in Sections 4.2.1 and 4.2.2 below;
(ii) Writing Requirement, as stated in Section 4.2.3 below;
(iii) Reading Requirement, as stated in Section 4.2.4 below; and
(iv) Discipline-Specific Language Requirement, as stated in Section 4.2.5 below.

Senior year students would be considered for credit transfer for 4.2 (i) based on their previous studies in AD/HD programmes and their academic performance. Students not meeting the equivalent standard of the Undergraduate Degree LCR will be required to take degree LCR subjects.

4.2.1 English

All undergraduate students must successfully complete <u>two</u> 3-credit English language subjects as stipulated by the University (Table 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).

Students who can demonstrate that they have achieved a level beyond that of the LCR proficient level subjects as listed in Table 2 (based on an assessment by ELC) may apply for subject exemption or credit transfer of the LCR subject or subjects concerned.

Table 1: Framework of English LCR subjects

HKDSE	**Subject 1**	**Subject 2**
Level 5 or equivalent	Advanced English for University Studies (ELC1014) 3 credits	Any one LCR Proficient level subject in English (see Table 2) 3 credits
Level 4 or equivalent	English for University Studies (ELC1013) 3 credits	Advanced English for University Studies (ELC1014) 3 credits

HKDSE	Subject 1	Subject 2
Level 3 or equivalent	Practical English for University Studies (ELC1011) 3 credits	English for University Studies (ELC1013) 3 credits

Table 2: LCR Proficient level subjects in English

For students entering with HKDSE Level 5, or at an equivalent level or above	Advanced English Reading and Writing Skills (ELC2011)	3 credits each
	Persuasive Communication (ELC2012)	
	English in Literature and Film (ELC2013)	

4.2.2 Chinese

All undergraduate students are required to successfully complete one 3-credit Chinese language subject as stipulated by the University (Table 3). These Chinese subjects are designed to suit students' different levels of Chinese language proficiency at entry, as determined by their HKDSE score or the Chinese Language Centre (CLC) entry assessment (when no HKDSE score is available). Students can also opt to take additional Chinese LCR subjects (Table 5) as their free electives.

Students who are non-Chinese speakers (NCS), or whose Chinese standards are at junior secondary level or below, will also be required to take one LCR subject specially designed to suit their language background and entry standard as shown in Table 4.

Students who can demonstrate that they have achieved a level beyond that of the subject "Advanced Communication Skill in Chinese" as listed in Table 3 (based on an assessment made by CLC) may apply for subject exemption or credit transfer of the LCR subject concerned.

Table 3: Framework of Chinese LCR subjects

HKDSE	Required Subject
HKDSE Level 4, 5 or equivalent	CBS1102P Advanced Communication Skills in Chinese (ACSC) 3 credits
HKDSE Level 3 or equivalent	CBS1101P Fundamentals of Chinese Communication (FCC) 3 credits

HKDSE	Required Subject
For non-Chinese speakers or students whose Chinese standards are at junior secondary level or below	One subject from Table 4 below

Table 4: Chinese LCR Subjects for non-Chinese speakers or students whose Chinese standards are at junior secondary level or below

Subject	Pre-requisite/exclusion	
CBS1151 Chinese I (for non-Chinese speaking students)	For non-Chinese speaking students at beginners' level	3 credits each
CBS1152 Chinese II (for non-Chinese speaking students)	• For non-Chinese speaking students; and • Students who have completed Chinese I or equivalent	
CBS2151 Chinese III (for non-Chinese speaking students)	• For non-Chinese speaking students at higher competence levels; and • Students who have completed Chinese II or equivalent	
CBS2152 Chinese Literature – Linguistics and Cultural Perspective (for non-Chinese speaking students)	For non-Chinese speaking students at higher competence levels	

Table 5: Other LCR Electives in Chinese

Subject	Pre-requisite/exclusion	
CBS2103P Chinese and the Multimedia	• For students entering with HKDSE Level 4 or above; or • Students with advanced competence level as determined by the entry assessment; or • Students who have completed "Fundamentals of Chinese Communication"	3 credits each
CBS2102P Creative Writing in Chinese	• For students entering with HKDSE Level 4 or above; or • Students with advanced competence level as determined by the entry assessment; or • Students who have completed "Fundamentals of Chinese Communication"	
CBS1153/CBS1153P Elementary Cantonese	For students whose native language is not Cantonese	
CBS2101P Putonghua in the Workplace	• Students who have completed "Fundamentals of Chinese Communication" or could demonstrate the proof with basic Putonghua proficiency • For students whose native language is not Putonghua	

4.2.3 Writing Requirement in CAR Subjects

In additional to the LCR in English and Chinese explained above, all students must also, among the Cluster Areas Requirement (CAR) subjects they take, 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 (2,500 words for English, 3,000 characters for Chinese). Students who are non-Chinese speakers or those whose Chinese standards are at junior secondary level or below will be exempted from the Chinese Writing requirement.

4.2.4 Reading Requirement in CAR Subjects

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 (100,000 words or 200 pages). Students who are non-Chinese speakers or those whose Chinese standards are at junior secondary level or below will be exempted from the Chinese Reading requirement.

A list of approved CAR subjects for meeting the Writing Requirement (with a "W" designation) and for meeting the Reading Requirement (with an "R" designation) is shown at: https://www2.polyu.edu.hk/as/Polyu/GUR/index.htm

4.2.5 Discipline-Specific Language Requirement

In addition to the LCR mentioned in Sections 4.2.1 to 4.2.4 above, students also have to complete the subject "Professional Communication" (2 credits in English and 2 credits in Chinese) as the discipline-specific language requirements.

Students who are non-Chinese speakers or those whose Chinese standards are at junior secondary level or below will be exempted from the Discipline-Specific Chinese Language requirement, i.e. CBS3241P Professional Communication in Chinese. These students must take 1 subject of any level to make up for the minimum total credit requirement.

5. SPECIFIED PROGRESSION PATTERN

5.1 Normal Year 1 Intake:

- HKDSE students who have Level 2 or above in HKDSE Physics or Combined Science with Physics
- Non-local students from the Chinese Mainland who have a Pass (a pass is taken as 60% of the total marks of the subject) in the Physics or Integrated Science subject in the Joint Entrance Examination for Universities

Year 1	
Semester 1 (15 credits)	**Semester 2 (15 credits)**
IC2114 Industrial Centre Training I for EIE (5 training credits)	
AP10005 Physics I (3 credits)	AP10006 Physics II (3 credits)
AMA1110 Basic Mathematics I – Calculus and Probability & Statistics (3 credits)	AMA1120 Basic Mathematics II –Calculus and Linear algebra (3 credits)
LCR I – English (3 credits)	CAR I (3 credits) Note 1
Leadership and Intra-Personal Development (3 credits)	ENG2003 Information Technology (3 credits)
ENG1003 Freshman Seminar for Engineering (3 credits)	LCR II – English (3 credits)
Healthy Lifestyle (0 credit) Note 1	
Year 2	
Semester 1 (16.5 credits)	**Semester 2 (16.5 credits)**
ENG2002 Computer Programming (3 credits)	
IC2114 Industrial Centre Training I for EIE (continued)	
CAR II (3 credits) Note 1	AF3625 Engineering Economics (3 credits)
LCR III – Chinese (3 credits)	AMA2112 Mathematics II (3 credits)
Choose one subject in either "Engineering Materials", "Biology" or "Chemistry" (3 credits)	EIE2102 Basic Electronics (3 credits)
AMA2111 Mathematics I (3 credits)	EIE2211 Logic Design (3 credits)
EIE2100 Basic Circuit Analysis (3 credits)	EIE3312 Linear Systems (3 credits)
Year 3	
Semester 1 (15 credits)	**Semester 2 (17 credits)**
ENG3002 Multidisciplinary Project / EIE3105 Integrated Project (6 credits)	
IC3114 Industrial Centre Training II for EIE (3 training credits)	
AMA2104 Probability and Engineering Statistics (3 credits)	EIE3331 Communication Fundamentals (3 credits)
EIE3100 Analogue Circuit Fundamentals (3 credits)	EIE4413 Digital Signal Processing (3 credits)
EIE3311 Computer System Fundamentals (3 credits)	ELC3521 Professional Communication in English (2 credits)
Service-Learning (3 credits) Note 1	Technical Elective 1 (3 credits) Note 2
	CAR III (3 credits) Note 1
Year 4	
Semester 1 (15 credits)	**Semester 2 (14 credits)**
EIE4433 Honours Project (6 credits)	
ENG3003 Engineering Management (3 credits)	ENG3004 Society and the Engineer (3 credits)
CAR IV (3 credits) Note 1	CBS3241P Professional Communication in Chinese (2 credits)
Technical Elective 2 (3 credits) Note 2	Technical Elective 4 (3 credits) Note 2
Technical Elective 3 (3 credits) Note 2	Technical Elective 5 (3 credits) Note 2

Total Number of Credits: 124

Note 1: The study pattern for the subjects is indicative only. Students may take these subjects according to their own schedule. They are recommended to consult their Academic Advisor for guidance and planning if necessary.

Note 2: At least 3 technical electives must be at level 4 or above.

5.2 Normal Year 1 Intake:
- HKDSE students who do not have Level 2 or above in HKDSE Physics or Combined Science with Physics
- Non-local students from the Chinese Mainland who do not have a Pass (a pass is taken as 60% of the total marks of the subject) in the Physics or Integrated Science subject in the Joint Entrance Examination for Universities

Year 1	
Semester 1 (15 credits)	**Semester 2 (15 credits)**
IC2114 Industrial Centre Training I for EIE (5 training credits)	
AP10001 Introduction to Physics (3 credits)	AP10006 Physics II (3 credits)
AMA1110 Basic Mathematics I – Calculus and Probability & Statistics (3 credits)	AMA1120 Basic Mathematics II –Calculus and Linear algebra (3 credits)
LCR I – English (3 credits)	CAR I (3 credits) Note 1
Leadership and Intra-Personal Development (3 credits)	LCR II – English (3 credits)
ENG1003 Freshman Seminar for Engineering (3 credits)	ENG2003 Information Technology (3 credits)
Healthy Lifestyle (0 credit) Note 1	
Year 2	
Semester 1 (16.5 credits)	**Semester 2 (16.5 credits)**
ENG2002 Computer Programming (3 credits)	
IC2114 Industrial Centre Training I for EIE (continued)	
AP10005 Physics I (3 credits)	AF3625 Engineering Economics (3 credits)
LCR III – Chinese (3 credits)	AMA2112 Mathematics II (3 credits)
Choose one subject in either "Engineering Materials", "Biology" or "Chemistry" (3 credits)	EIE2102 Basic Electronics (3 credits)
AMA2111 Mathematics I (3 credits)	EIE2211 Logic Design (3 credits)
EIE2100 Basic Circuit Analysis (3 credits)	EIE3312 Linear Systems (3 credits)
Year 3	
Semester 1 (15 credits)	**Semester 2 (17 credits)**
ENG3002 Multidisciplinary Project / EIE3105 Integrated Project (6 credits)	
IC3114 Industrial Centre Training II for EIE (3 training credits)	
CAR II (3 credits) Note 1	ELC3521 Professional Communication in English (2 credits)
AMA2104 Probability and Engineering Statistics (3 credits)	Service-Learning (3 credits) Note 1
EIE3100 Analogue Circuit Fundamentals (3 credits)	EIE3331 Communication Fundamentals (3 credits)
EIE3311 Computer System Fundamentals (3 credits)	EIE4413 Digital Signal Processing (3 credits)
	Technical Elective 1 (3 credits) Note 2
Year 4	
Semester 1 (15 credits)	**Semester 2 (17 credits)**
EIE4433 Honours Project (6 credits)	
ENG3003 Engineering Management (3 credits)	ENG3004 Society and the Engineer (3 credits)
CAR III (3 credits) Note 1	CAR IV (3 credits) Note 1
Technical Elective 2 (3 credits) Note 2	CBS3241P Professional Communication in Chinese (2 credits)
Technical Elective 3 (3 credits) Note 2	Technical Elective 4 (3 credits) Note 2
	Technical Elective 5 (3 credits) Note 2

Total Number of Credits: 127

Note 1: The study pattern for the subjects is indicative only. Students may take these subjects according to their own schedule. They are recommended to consult their Academic Advisor for guidance and planning if necessary.

Note 2: At least 3 technical electives must be at level 4 or above.

5.3 Senior Year Intake:
- For Senior Year students with relevant Higher Diploma/Associate Degree from a recognized institution [Note 3]

Year 1	
Semester 1 (15 credits)	**Semester 2 (17 credits)**
ENG3002 Multidisciplinary Project / EIE3105 Integrated Project (6 credits)	
Service-Learning (3 credits) [Note 4]	ELC3521 Professional Communication in English (2 credits)
AMA2104 Probability and Engineering Statistics (3 credits)	ENG3004 Society and the Engineer
EIE3100 Analogue Circuit Fundamentals (3 credits)	EIE3312 Linear Systems (3 credits)
EIE3311 Computer System Fundamentals (3 credits)	EIE3331 Communication Fundamentals (3 credits)
	Technical Elective 1 (3 credits) [Note 2]
IC2114 Industrial Centre Training I for EIE (5 training credits)	IC2114 Industrial Centre Training I for EIE (continued)
Year 2	
Semester 1 (18 credits)	**Semester 2 (17 credits)**
EIE4433 Honours Project (6 credits)	
AF3625 Engineering Economics (3 credits)	EIE4413 Digital Signal Processing (3 credits)
CAR I (3 credits) [Note 1, 5]	CAR II (3 credits) [Note 1,5]
ENG3003 Engineering Management (3 credits)	CBS3241P Professional Communication in Chinese (2 credits)
Technical Elective 2 (3 credits) [Note 2]	Technical Elective 4 (3 credits) [Note 2]
Technical Elective 3 (3 credits) [Note 2]	Technical Elective 5 (3 credits) [Note 2]
IC3114 Industrial Centre Training II for EIE (3 training credits)	IC3114 Industrial Centre Training II for EIE (continued)

Total Number of Credits: 67

Note 1: The study pattern for the subjects is indicative only. Students may take these subjects according to their own schedule. They are recommended to consult their Academic Advisor for guidance and planning if necessary.

Note 2: At least 3 technical electives must be at level 4 or above.

Note 3: 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 approved subjects transferred.

Note 4: Prior to its full implementation, students may take a 3-credit free elective in lieu of the Service Learning requirement.

Note 5: 6 credits of Cluster Areas Requirement (CAR) from two different cluster areas. Students also need to fulfil the English and Chinese reading and writing requirements and take 3 of the 6 CAR credits designated as “China-related” (China Studies Requirement), if such requirements have not been fulfilled in previous studies.

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 4.2 of this booklet.

6. HONOURS PROJECT

The Honours Project is considered to be of great importance. This is reflected in the number of credits it carries, being 6 credits which are equivalent to two standard-sized subjects. Furthermore, the result of the Honours Project will be very important when the Board of Examiners considers the award classification of a student. Normally, the Board of Examiners will expect a very good grade for the Honours Project when a student is to be awarded a high Honours classification.

One of the important features of the Honours Project is "learning by doing". It is intended to be a platform for the students to develop their intellectual and innovative abilities and to give them the opportunities to integrate and apply the knowledge and analytical skills gained in previous stages of study. It should also provide students with opportunities to develop their problem-solving skills and communication skills. The process from concept to final implementation and testing, through problem identification and the selection of appropriate solutions will be practised by the students.

6.1 Project Management

Normally each student will be assigned one project under the supervision of an academic staff member so that he/she will work independently to achieve the project objectives. In other cases, several students may work on different aspects of a large-scale project.

The assignment of projects is expected to be completed by the month of June preceding the beginning of the final year of study. Guidelines for Honours Project are given to students at the beginning of the final year.

6.2 Project Assessment

Assessment of the Honours Project focuses in three main areas: project reports, oral presentations and work done over the whole project period. Assessment will be done by the project supervisor and an assessor. The Project Management Team, which is composed of the Programme Leader and staff members from teaching sections, will oversee the overall standard of assessment of the projects. The Project Management Team will also oversee the daily operation, such as fixing the dates of project report submission, oral presentation, demonstration, etc.

7. INDUSTRIAL CENTRE TRAINING

Industrial Centre (IC) Training is a practical training element in this curriculum to provide a chance for the students to develop hands-on experience in various engineering domains in order to prepare for a career in the engineering profession.

Students must pass all IC Training subjects in order to be considered for the BEng(Hons) in Electronic and Information Engineering award. IC Training is graded in the normal manner from A+ to F and will be counted in the evaluation of the Grade Point Average (GPA). However, they will not be counted towards Weighted GPA or Award GPA. The assessment method of Industrial Centre Training is based on 100% continuous assessment. The assessment components are workshop reports, competency in practical works, and appreciation tests. To complete the IC Training successfully, students must demonstrate good professional attributes including responsible attitude in training, excellent attendance with active learning, exercising best practice and care in equipment and tools while observing all safety codes. Detail of assessment scheme is available from Industrial Centre.

8. WORK-INTEGRATED EDUCATION (WIE)

8.1 WIE is a mandatory component of the Programme. There are many routes or options for the students to pursue Work-Integrated Education (WIE). These options include the industrial projects and other workplace training opportunities provided by the University or found by students themselves, etc.

8.2 Credits Requirement

In order to graduate from this programme, students must attain a minimum of one WIE training credit within the period of study. WIE credits to be earned by students may vary. Following the Faculty of Engineering's guideline, students will be awarded one WIE training credit for acquiring every two weeks' full-time training. WIE training credits will not be counted towards the Grade Point Average (GPA) nor the Weighted GPA (WGPA). After assessing the student's training performance, a Pass or a Fail grade will be awarded to the student on his/her WIE component. Depending on the actual job duration, the number of training credits obtained by the students varies. For the case of industrial project, normally 2 WIE credits will be earned by a student over a period of 4 weeks of workplace training.

8.3 Intended Learning Outcomes of WIE

Since WIE can take different forms and be applied to different kinds of job, the learning outcomes to be achieved vary depending on the job nature and its duration engaged by the student. However, based on the experience gained, WIE can bring a lot of advantages to students' learning both in the profession-specific areas and in their all-round development. The intended learning outcomes of WIE are elaborated in the following paragraph.

On successful completion of the WIE component, the students will be able to:

(i) Apply knowledge and skills learned from the Programme on the job in a broad context of networking and multimedia profession.
(ii) Recognize the operation and requirement of real-life business, leading to the development of entrepreneurship, global outlook, professional ethics, social and cultural understanding.
(iii) Recognize the expectation of employers, hence leading to better employability.
(iv) Develop their all-round attributes such as interpersonal skills and leadership.
(v) Develop their critical and creative thinking, and problem-solving skills while taking into account various real-life constraints, helping them to pursue life-long learning and continuing professional development.

8.4 Structure of the WIE Component(s)

WIE component under the Programme can be in many forms, including industrial project and other job opportunities.

8.4.1 Industrial Project

Industrial projects are Honours Projects working with the industry. Students working on an industrial project will pursue the project in a company for a certain period of time. The students will work with a real-life project in the real working environment.

8.4.2 Other Job Opportunities

It is possible that students find jobs for themselves to work during the summer vacation. This kind of job opportunity will be judged by the Department whether it is helpful to the students in achieving the intended learning outcomes of WIE. The students and the Academic Advisor/WIE Coordinators will work collaboratively with regard to the job selection and the subsequent training contents. The Department will constantly monitor the progress. At the end of the training, an assessment will be made on the achievement of learning outcomes.

8.5 Guidelines for Operation and Supervision of WIE

The Department adopts a set of strategies to support students' learning in the workplace. The followings are the details of the operation at different stages.

8.5.1 Preparation

The Department will actively align with the industry to get WIE placement opportunities for students. It is important for students to be fully aware of the benefits brought by WIE. Students will be asked to attend employment seminars as early as possible. Through this type of arrangement, students in all years will be well prepared for job hunting and employment in advance. Students will also be able to realize the benefits for engaging in WIE and the importance of taking an active role in completing the training with the best effort.

8.5.2 Operation

There will be WIE Coordinators overseeing all matters related to WIE activities under the Programme. The WIE Coordinators are the academic staff members of the

Department responsible for the organization and operation of WIE activities. To guide the students and monitor their progress in taking the WIE, each student will be assigned an academic advisor from the Department. The student and his/her Academic Advisor will jointly plan the WIE details, such as job selection, training plan, logging of activities, reporting, and assessment.

In the case that the student finds job placement(s) on his/her own, the Academic Advisor will work with the student to design the learning outcomes if the placement is suitable to be recognized as a WIE activity. The Academic Advisor will make frequent contacts with the student and, if appropriate, the employer to monitor the progress of the student.

Each student will be guided by his/her Academic Advisor when conducting the WIE training. The student's work will be monitored continuously and an assessment will be given when the WIE placement is completed.

8.5.3 Assessment of the WIE Component(s)

The objective of assessment is to determine what the student has achieved through WIE. The actual type of work and duration will vary from case to case. Hence an assessment framework is set out in the following as a general guideline.

(i) Continuous Assessment

The Academic Advisor may visit the student during the training period so that the Academic Advisor and the employer will be able to discuss the student's performance together. This will give better feedback on the student's performance before the training is completed.

(ii) Report

After the training is completed, the student is required to submit a report to the Academic Advisor. The details to be contained in the report should be commensurate with the training duration. It contains a brief reflective writing on the training received, the objectives that have been achieved, and the experience gained. The student may also conduct a self-evaluation on his/her own performance. The report must be endorsed by the student's employer before its submission.

(iii) Employer Evaluation

At the end of the training period, the employer will provide an evaluation of the student's performance, assessing the student's work and all-round development.

(iv) Overall Assessment

An overall assessment of the student's performance will be made by the Academic Advisor by considering all the assessment components as stated in Section 8.5.3(i)-(iii). A pass grade will be given to the student upon satisfactory completion of the WIE component; otherwise a failure grade will be given.

9. DEPARTMENTAL UNDERGRADUATE PROGRAMME COMMITTEE

9.1 The composition of the Departmental Undergraduate Programme Committee (DUPC) is decided by the Head of Department. Normally, the DUPC consists of Programme Leaders of all degree and higher diploma programmes hosted by the Department, Head of Department, representative from the Departmental Learning and Teaching Committee, teaching staff representatives, representatives from major serving departments and student representatives. The Committee is responsible for programme review and development.

9.2 The DUPC will collect and consider, on a regular basis, the views of students and other key stakeholders on the relevance and currency of the syllabi, the standards of the examinations, the development of the programme, the adequacy of resources and the local and worldwide trends related to learning and teaching, for the continuous improvement of the programme.

10. STUDENT STATUS

10.1 Students' eligibility for the range of services provided by the University will be governed by the students' status, which is determined with reference to the mode of attendance of the programmes enrolled and/or the study load as described in Sections 10.2 to 10.5 below.

Full-time students:

10.2 Students enrolling on this programme, which is classified as full-time/sandwich, with a study load of 9 credits or more in a semester, are classified as *full-time* students. Students who wish to change their study load to less than 9 credits in a semester will have to seek prior approval from their Department. Students who have been given permission to take less than 9 credits in a semester will be given the option to pay by credit fees. If students wish to exercise such option, they have to inform the Department before the end of the add/drop period of that semester.

10.3 Full-time local students enrolled on UGC-funded programmes are eligible to apply for financial assistance from the Government in the form of grant and loan. Government grant and loan may not be granted beyond the normal period of study for the programme.

Self-paced students:

10.4 Students who wish to study at their own pace instead of following the specified progression pattern will have to seek prior approval from their Department. These students are referred to as self-paced students.

Subject-based students:

10.5 Students who wish to take individual subjects, but do not wish to register as a candidate for an award, are classified as subject-based students.

11. SUBJECT REGISTRATION AND WITHDRAWAL

11.1 In addition to programme registration, students need to register for subjects at specified periods prior to the commencement of a semester. An add/drop period will also be scheduled for each semester. Students may apply for withdrawal of their registration on a subject after the add / drop 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 lecturer and the host Department Programme Leader concerned (or an alternate academic staff authorised by the programme offering Department). Applications submitted after the commencement of the examination period will not be considered. Once the application of subject withdrawal is approved, the tuition fee paid for the subject will be forfeited and the withdrawal status of the subject will be shown in the examination result notification and transcript of studies, but will not be counted in the calculation of the GPA.

11.2 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.

11.3 Students will be allowed to take additional subjects for the following semester for broadening purpose, after they fulfil the graduation requirements. 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 as subject-based students only.

12. STUDY LOAD

12.1 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 Booklet, for each semester. Students cannot drop those subjects assigned by the department unless prior approval has been given by the department.

12.2 The normal study load is 15 credits in a semester. 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 Department. For such cases, students are reminded that the study load approved should not be taken as grounds for academic appeal.

12.3 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 Department; otherwise they will be classified as having unofficially withdrawn from the 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 maximum period of registration.

12.4 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.

13. SUBJECT EXEMPTION

Students may be exempted from taking any specified subjects, including mandatory General University Requirements (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. In case of disagreement between the programme offering department and the subject offering department, the two Faculty Deans/School Board Chairmen concerned will make a final decision jointly on the application. If students are exempted from taking a specified subject, the credits associated with the exempted subject will not be counted towards the award requirements (except for exemptions granted at admission stage). 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.

14. CREDIT TRANSFER

14.1 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. Transferred credits may be counted towards more than one award. The granting of credit transfer is a matter of academic judgment. In assessing the transferability of subjects previously taken, the syllabus of that subject should be carefully scrutinized to ascertain that it is comparable to the PolyU's curriculum. Whether the previous studies are from institutions on credit-based or non-credit-based system should not be a matter of concern, and the subject size need not be a perfect match. To ascertain the academic standing of the institution offering the previous studies, the Department might need to request the institutions concerned to provide more relevant information.

14.2 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. As the application for credit transfer may involve subjects offered by more than one Department, the programme offering Department should coordinate and check whether the maximum limit for credit transfer for a student has been exceeded, and whether the student has fulfilled the residential requirement of the University.

14.3 In case of disagreement between the programme offering Department and the subject offering Department, the two Faculty Deans/School Board Chairmen concerned will make a final decision jointly on the application. The validity period of credits previously earned is 8 years after the year of attainment.

14.4 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.

14.5 If the transferred credits are for a PolyU programme which is accredited by a professional body, the Department concerned should ensure that the transferred credits will also meet the requirement of the relevant professional body.

14.6 If a student is waived from a particular stage of study on the basis of advanced qualifications held at the time of admission, the student concerned will be required to complete fewer credits for award. For these students, the exempted credits will be counted towards the maximum limit for credit transfer when students apply for further credit transfer after their admission.

14.7 Notwithstanding the upper limits stipulated in Section 14.4 above, (and unless professional bodies stipulate otherwise) students may be given more credit transfer than these upper limits (e.g. upon completion of an exchange programme as mentioned in Section 14.8 below), subject to their satisfying the residential requirement.

14.8 Credit transfer can be applicable to credits earned by students through studying at an overseas institution under an approved exchange programme. Students should, before they go abroad for the exchange programme, seek prior approval from the programme offering Department (who will consult the subject offering Departments as appropriate) on their study plan and credit transferability. As with all other credit transfer applications, the Departments concerned should scrutinise the syllabuses of the subjects which the students are going to take at the overseas institution, and determine their credit transferability based on academic equivalence with the corresponding subjects on offer at the PolyU, and the comparability of the grading systems adopted by PolyU and the overseas institution. The transferability of credits, and the suitability for allowing grades to be carried over, must be determined and communicated to students before they go abroad for the exchange programme. In order to overcome the problems associated with subject-to-subject mappings, block credit transfer rather than subject-by-subject credit transfer can be given.

14.9 All credit transfers approved will take effect only in the semester for which they are approved. A student who applies for transfer of credits during the re-enrolment or the add/drop period of 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.

14.10 Regarding credit transfer for GUR subjects, the Programme Host Department is the approval authority at the time of admission to determine the number of GUR credits which an Advanced Standing student will be required to complete for the award concerned. Programme Host Departments will make reference to the mapping lists of GUR subjects, compiled by the Committee on General University Requirements (CoGUR), on the eligibility of the subjects which can qualify as GUR subjects. Applications for credit transfer of GUR subjects after admission will be considered, on a case-by-case basis, by the Subject Offering Department or Office of General University Requirements (OGUR)/Office of Service Learning (OSL), in consultation with the relevant Sub-committee(s) under CoGUR, as appropriate.

15. DEFERMENT OF STUDY

15.1 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 maximum period of registration.

15.2 Application for deferment of study will be entertained only in exceptional circumstances for students who have not yet completed the first year of a full-time or sandwich programme.

15.3 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.

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

16. PRINCIPLES OF ASSESSMENT

16.1 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 will be designed for this purpose. The assessment methods will also enable teachers to differentiate students' different levels of performance within subjects. Assessment for learning is to engage students in productive learning activities through purposefully designed assessment tasks.

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

16.3 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 Academic Regulations Committee (ARC) and reported to the Senate.

17. ASSESSMENT METHODS

17.1 Students' performance in a subject can be assessed by continuous assessment and/or examination, at the discretion of the individual subject offering Department. Where both continuous assessment and examination are used, the weighting of each in the overall subject grade will be clearly stated in the programme booklet. 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) will be specified in the programme booklet. Learning outcomes should be assessed by continuous assessment and/or examination appropriately, in line with the outcome-based approach.

17.2 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.

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

17.4 At the beginning of each semester, the subject teacher will inform students of the details of the methods of assessments to be used within the assessment framework as specified in the programme booklet.

18. SUBJECT RESULTS

18.1 Subject Lecturers have sole responsibilities for marking students' coursework and examination scripts, grading them, finalising the results and informing each student of his/her results, in respect of the subject they teach. In this regard, Subject Lecturers will be accountable to the Head of the subject offering Department to ensure that the scripts are correctly marked and graded, and to avoid administrative errors at all times. To ensure consistency and uniformity for a common subject taught by different Subject Lecturers, meetings can be arranged amongst them before the examination papers are set or before the marking is done.

18.2 Subject Assessment Review Panel (SARP) may also be formed by the Head of the Department offering the subjects to review and finalise the subject grades for submission to the Board of Examiners. One Subject Assessment Review Panel may be formed to take care of all subjects offered by the Department.

18.3 SARP shall include the Head of the Department offering the subjects (as Chairman), the relevant subject examiners and where appropriate, the programme leader.

19. BOARD OF EXAMINERS (BoE)

19.1 The authority for approving the overall results of students rests with the Board of Examiners (BoE). The BoE will meet at the end of each semester (except for Summer Term unless there are students who are eligible to graduate after the completion of Summer Term subjects) and is responsible to the Senate for making:

(i) a decision on the classification of awards to be granted to each student on completion of the programme;

(ii) a decision on deregistration cases; and

(iii) a decision on cases with extenuating circumstance.

19.2 These decisions are made by the full BoE at the end of each semester in the light of the standard of student achievement appropriate to the award to which the programme is designed to lead, the aims of the programme, the performance on the programme in previous years, the general assessment regulations of the University and the specific programme regulations, and good practice established in the University and elsewhere.

19.3 The BoE will not attempt to change the grades for any student in any subject nor condone failures. The decisions of the BoE, except those on award and deregistration cases which are straight forward, will be ratified by the Faculty Board. The Faculty Board may refer the decisions back to the BoE for further consideration and explanation.

19.4 Any decisions by the BoE outside the General Assessment Regulations of the University, supported by the Faculty Board, shall be referred to the Academic Regulations Committee for ratification. All such cases shall be reported to the Senate. Decisions by BoE outside the programme regulations but within the general assessment regulations of the University fall within the authority of the Faculty Board.

19.5 Students shall be formally notified of decisions affecting them after the BoE meeting except for those cases which require ratification of the Faculty Board. For the latter cases, students shall be formally notified of decisions after the Faculty Board's ratification or, if a decision is outside the General Assessment Regulations, after the Academic Regulations Committee ratifies that decision. Any prior communication of results to these students shall be subject to formal ratification.

20. PROGRESSION / ACADEMIC PROBATION / DEREGISTRATION

20.1 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), determine whether each student is

(i) eligible for progression towards an award; or

(ii) eligible for an award; or

(iii) required to be deregistered from the programme.

20.2 When a student has a Grade Point Average (GPA) (see Section 24.3 below) lower than 2.0, he/she will be put on academic probation in the following semester. If a student is able to pull his/her GPA up to 2.0 or above at the end of that following semester, the status of "academic probation" will be lifted. The status of "academic probation" will be reflected in the examination result notification but not in the transcript of studies.

20.3 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:

(i) the student has exceeded the maximum period of registration for the programme as specified in this programme booklet; or

(ii) the student's GPA is lower than 2.0 for two consecutive semesters and his/her Semester GPA in the second semester is also lower than 2.0; or

(iii) the student's GPA is lower than 2.0 for three consecutive semesters.

20.4 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 this programme booklet.

20.5 A student may be de-registered from the programme enrolled before the time frame specified in Sections 20.3(ii) or 20.3(iii) above if his/her academic performance is poor to the extent that the Board of Examiners considers that there is not much of a chance for him/her to attain a GPA of 2.0 at the end of the programme.

20.6 Where there are good reasons, the Board of Examiners has the discretion to recommend allowing students who fall into categories as stated in Sections 20.3(ii) or 20.3(iii) above to stay on the programme, and these recommendations should be presented to the relevant Faculty/School Board for final decision.

20.7 Under the current procedures, a student can appeal against the decision of the Board of Examiners to deregister him/her. If such an appeal was upheld by the Department, the recommendation (to reverse the previous decision to deregister the student) will also be presented to the relevant Faculty Board for final decision.

21. APPEAL AGAINST ASSESSMENT RESULTS

A student may appeal against a decision of a Subject Assessment Review Panel or the Board of Examiners within 7 working days upon the public announcement of the examination results. The procedures for appeals against examination results are detailed in the Student Handbook.

22. RETAKING OF SUBJECTS

22.1 Students may retake any subject for the purpose of improving their grade without having to seek approval, but they must retake a compulsory subject which they have failed, i.e. obtained an F grade. Retaking of subjects is with the condition that the maximum study load of 21 credits per semester is not exceeded. Students wishing to retake passed subjects will be accorded a lower priority than those who are required to retake (due to failure in a compulsory subject) and can only do so if places are available.

22.2 The number of retakes of a subject is not restricted. Only the grade obtained in the final attempt of retaking (even if the retake grade is lower than the original grade for an originally passed subject) will be included in the calculation of the Grade Point Average (GPA). If students have passed a subject but failed after retake, credits accumulated for passing the subject in a previous attempt will remain valid for satisfying the credit requirement for award. (The grades obtained in previous attempts will only be reflected in transcript of studies.).

22.3 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.

23. EXCEPTIONAL CIRCUMSTANCES

Absence from an assessment component

23.1 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 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 completing the late assessment.

23.2 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 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 Lecturer concerned, in consultation with the Programme Leader.

Aegrotat award

23.3 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.

23.4 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.

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

23.6 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.

Other particular circumstances

23.7 A student's particular circumstances may influence the procedures for assessment but not the standard of performance expected in assessment.

24. GRADING

24.1 Assessment grades shall be awarded on a criterion-referenced basis. A student's overall performance in a subject (including GUR subjects) shall be graded as follows:

Subject grade	***Short description***	***Elaboration on subject grading description***
A+	Exceptionally Outstanding	The student's work is exceptionally outstanding. It exceeds the intended subject learning outcomes in all regards.
A	Outstanding	The student's work is outstanding. It exceeds the intended subject learning outcomes in nearly all regards.
B+	Very Good	The student's work is very good. It exceeds the intended subject learning outcomes in most regards.
B	Good	The student's work is good. It exceeds the intended subject learning outcomes in some regards.
C+	Wholly Satisfactory	The student's work is wholly satisfactory. It fully meets the intended subject learning outcomes.
C	Satisfactory	The student's work is satisfactory. It largely meets the intended subject learning outcomes.
D+	Barely Satisfactory	The student's work is barely satisfactory. It marginally meets the intended subject learning outcomes.
D	Barely Adequate	The student's work is barely adequate. It meets the intended subject learning outcomes only in some regards.
F	Inadequate	The student's work is inadequate. It fails to meet many of the intended subject learning outcomes.

'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.

24.2 A numeral grade point is assigned to each subject grade, as follows:

Grade	***Grade Point***
A+	4.5
A	4
B+	3.5
B	3
C+	2.5
C	2
D+	1.5
D	1
F	0

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

$$\text{GPA} = \frac{\sum_{n} \text{Subject Grade Point} \times \text{Subject Credit Value}}{\sum_{n} \text{Subject Credit Value}}$$

where n = number of subjects as listed in Table 4.1 (inclusive of failed subjects) taken by the student up to and including the latest semester. For subjects which have been retaken, only the grade point obtained in the final attempt will be included in the GPA calculation.

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

(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')

Subject which has been given an "S" code, i.e. absent from assessment, 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 is capped at 4.0.

24.4 Different types of GPA's

24.4.1 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.

24.4.2 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.

24.4.3 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. GUR subjects will be included in the calculation of weighted GPA for all programmes.

24.4.4 When a student has satisfied the requirements for award, an award GPA will be calculated to determine his/her award classification. GUR subjects will be included in the calculation of award GPA for all programmes.

24.4.5 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 his/her award classification, which will be so reflected on the award parchment. The Minor GPA can be used as a reference for the Board of Examiners to moderate the award classification for the Major, as explained further in Section 26.12.

24.4.6 The relationship between the different types of GPA's, and the methods for calculating each, is further explained in Appendix 1.

25. GRADUATION REQUIREMENTS FOR BENG(HONS) IN ELECTRONIC AND INFORMATION ENGINEERING PROGRAMME

All students qualifying for a 4-year Full-time Undergraduate Degree offered from 2014/15 onward must meet:

(i) the University Graduation Requirements, as explained in Section 25.1 below; and
(ii) the specific graduation requirements of their chosen programme of study (Majors and Minors), as stated in Section 25.2 below.

25.1 University Graduation Requirements

25.1.1 Normal Year 1 Intake:

(i) Satisfy the following requirements in general education (GUR):
  (a) 9 credits of Language and Communication Requirements (LCR) as set out in Section 4.2[Note 1].
  (b) 3 credits of Freshman Seminar.
  (c) 3 credits of Leadership and Intra-Personal Development.
  (d) 3 credits of Service-Learning.
  (e) 12 credits of Cluster Areas Requirement (CAR).
  (f) 3 of the 12 CAR credits are designated as "China-related" (China Studies Requirement).
  (g) Healthy Lifestyle [Note 2].
(ii) Earn a cumulative GPA (or both a Major GPA and a Minor GPA if applicable) of 2.00 or above at graduation.
(iii) Obtain at least 1 WIE credit as set out in Section 8.2.
(iv) Satisfy the residential requirement for at least 1/3 of the credits to be completed for the award the student is currently enrolled, unless the professional bodies stipulate otherwise.

25.1.2 Senior Year Intake:

(i) Satisfy the following requirements in general education (GUR):
  (a) 3 credits of Service-Learning. (Prior to its full implementation, students may take a 3-credit free elective in lieu of the Service Learning requirement.)
  (b) 6 credits of Cluster Areas Requirement (CAR) from two different cluster areas.

(c) 3 of the 6 CAR credits are designated as "China-related" (China Studies Requirement), and fulfil the English and Chinese reading and writing requirements.

(d) Having met the equivalent standard of the Undergraduate Degree Language and Communication Requirements (LCR) as set out in Section 4.2 [Note 1].

(ii) Earn a cumulative GPA of 2.00 or above at graduation.

(iii) Obtain at least 1 WIE credit as set out in Section 8.2.

(iv) Satisfy the residential requirement for at least 1/3 of the credits to be completed for the award the student is currently enrolled, unless the professional bodies stipulate otherwise.

Further details about the University Graduation Requirements can be found in Appendix 2.

Note 1: Non-Chinese speakers and those students whose Chinese standards are at junior secondary level or below will by default be exempted from the DSR - Chinese and CAR - Chinese Reading and Writing requirements. However, this group of students would still be required to take one Chinese LCR subject to fulfil their Chinese LCR.

Note 2: Students admitted to the programmes as Senior Year Intakes are not required to take the Healthy Lifestyle Programme. Full-time Advanced Standing students who are not holders of AD/HD are still required to take the Healthy Lifestyle Programme.

25.2 Specific Graduation Requirements for the **BEng(Hons) in Electronic and Information Engineering** Programme

25.2.1 Normal Year 1 Intake:

(i) Complete successfully a minimum of **124** academic credits composed of the following:

(a) 30 credits of General University Requirements (GUR) as set out in Section 25.1.1(i).

(b) 94 credits of Discipline-Specific Requirements (DSR), of which 79 credits from subjects categorized as COM (compulsory) and 15 credits from subjects categorized as ELE (elective) (at least 3 of these electives must be at level 4 or above) as stated in Table 4.1.

(ii) Obtain a total 8 credits in TRN (Training) as stated in Table 4.1.

(iii) Satisfy the residential requirement for at least 1/3 of the credits to be completed for the award the student is currently enrolled, unless the professional bodies

stipulate otherwise.

(iv) In addition to the minimum 124 academic credits, HKDSE students who do not have Level 2 or above in HKDSE Physics or Combined Science with Physics, and non-local students from the Chinese Mainland who do not have a Pass (a pass is taken as 60% of the total marks of the subject) in the Physics or Integrated Science subject in the Joint Entrance Examination for Universities are required to study 3 more credits on Physics in order to graduate: **127** academic credits.

25.2.2 Senior Year Intake:

(i) Complete successfully a minimum of **67** academic credits composed of the following:

(a) 9 credits of General University Requirements (GUR) as set out in Section 25.1.2 (i).

(b) 58 credits of Discipline-Specific Requirements (DSR), of which 43 credits from subjects categorized as COM (compulsory) and 15 credits from subjects categorized as ELE (elective) (at least 3 of these electives must be at level 4 or above) as stated in Table 4.1.

(ii) Obtain a total 8 credits in TRN (Training) as stated in Table 4.1.

(iii) Satisfy the residential requirement for at least 1/3 of the credits to be completed for the award the student is currently enrolled, unless the professional bodies stipulate otherwise.

25.3 Students Taking the Major/Minor Option

The credit requirement for a Minor is 18 with at least 50% (9 credits) of the subjects at Level 3 or above. 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 2.0 or above for the Major programme, Minor programme and overall) 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. Subject to approval by the Minor-offering department, students may count up to 6 credits from their Major/GUR (including LCR subjects at proficient level) towards their chosen Minor.

25.4 A student is required to graduate as soon as he/she satisfies the graduation requirements as stipulated in Section 25.1 to Section 25.3 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.

26. GUIDELINES FOR AWARD CLASSIFICATION

26.1 The guidelines for award classification of BEng(Hons) in Electronic and Information Engineering award are stated in the following. In using these guidelines, the Board of Examiners shall exercise its judgement in coming to its conclusions as to the award for each student, and where appropriate, may use other relevant information.

26.2 This Programme uses Weighted GPA as a guide for helping to determine award classifications. A University-wide standard weighting are applied to all subjects of the same level, with a weighting of 2 for Level 1 and 2 subjects, a weighting of 3 for Level 3, 4 and 5 subjects.

Weighted GPA will be computed as follows:

$$\text{Weighted GPA} = \frac{\sum_{n} \text{Subject Grade Point} \times \text{Subject Credit Value} \times W_i}{\sum_{n} \text{Subject Credit Value} \times W_i}$$

where W_i = 2 for all Level 1 and Level 2 subjects, and

W_i = 3 for all Level 3, Level 4 and Level 5 subjects.

n = number of subjects counted towards the award as listed in Table 4.1 according to the Specified Progression Pattern (Section 5) (inclusive of failed subjects) taken by the student up to and including the latest semester, but for subjects which have been retaken, only the grade obtained in the final attempt will be included in the GPA calculation except those exclusions specified in Section 26.3.

Same as GPA, Weighted GPA is capped at 4.0.

26.3 Any subjects passed after the graduation requirement has been met will not be taken into account in the grade point calculation for award classification.

26.4 The followings are guidelines for the Board for Examiners' reference in determining award classifications:

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.
2nd (Division I)	The student has reached a standard of performance/attainment which is more than satisfactory but less than outstanding.
2nd (Division 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.

26.5 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 2.0 or more, but his/her Weighted GPA is less than 2.0, 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.

26.6 The following is a set of indicators, for the Board of Examiners' reference, which can be used in helping to determine award classification:

Honours Classification	***Weighted GPA***
1st	3.7^{+} - 4
2nd (Division I)	3.2^{+} - 3.7^{-}
2nd (Division II)	2.3^{+} - 3.2^{-}
3rd	2.0 - 2.3^{-}

Note: "+" sign denotes 'equal to or more than'; "–" sign denotes 'less than'.

26.7 There is no requirement for the Board of Examiners to produce an award list which conforms to the guidelines in Section 26.6 above.

Students Taking the Major/Minor Studies:

26.8 For students who have completed a Major/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" and the grades obtained for the free electives.

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

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

26.11 The "Major GPA" and the "Minor GPA" will be presented separately to the Board of Examiners for consideration. The guidelines for determining award classification as stipulated in Sections 26.1 to 26.7 above are applicable to programmes with Major/Minor studies.

26.12 Where a student has a high GPA for his/her Major but a low 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 than his/her GPA for the Minor, the Board of Examiners may consider giving the student a higher award classification than that with reference to his/her Major GPA.

CURRICULUM MAP
Alignment of Subjects with Programme Intended Learning Outcomes

	Programme Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
A. GENERAL UNIVERSITY REQUIREMENTS (GUR)											
Language and Communication Requirements (LCR)											
LCR - English - ELCXXXX (2 Subjects)									T,P		
LCR - Chinese - CBSXXXX (1 Subject)									T,P		
Cluster-Area Requirements (CAR) (4 Subjects)											
CAR - Cluster-Area Requirement Subjects+								T,P	T,P	T,P	
Other Requirements											
ENG1003 Freshman Seminar for Engineering							T,P		T,P	T,P	T,P
LIPD - Leadership and Intra-Personal Development							T,P		T,P		
SL - Service-Learning								T,P			
B. DISCIPLINE-SPECIFIC REQUIREMENTS (DSR)											
Compulsory - Mathematics and Basic Sciences Subjects											
AMA1110 Basic Mathematics I – Calculus and Probability & Statistics				T,P	T,P					T	T,P
AMA1120 Basic Mathematics II –Calculus and Linear algebra				T,P	T,P					T	T,P
AMA2104 Probability and Engineering Statistics	T,P			T,P	T,P				T,P	T	
AMA2111 Mathematics I				T,P	T,P					T	T,P
AMA2112 Mathematics II				T,P	T,P					T	T,P
AP10001 Introduction to Physics	T,P			T,P						T	
AP10005 Physics I	T,P			T,P							
AP10006 Physics II	T,P			T,P							
Choose one subject in either "Engineering Materials", "Biology" or "Chemistry" below:											
ENG2001 Fundamentals of Materials Science and Engineering/	T,P		T,P								
ABCT1101 Introductory Life Science/	T,P		T,P								
ABCT1301 Chemistry and Modern Living/	T,P		T,P								
ABCT1302 Chemistry and Sustainable Development/	T,P		T,P								
ABCT1303 Biotechnology and Human Health/	T,P		T,P								
BME11101 Bionic Human and the Future of Being Human	T,P					T,P			T,P		
Compulsory - Engineering Subjects											
EIE2100 Basic Circuit Analysis	T,P	T,P									
EIE2102 Basic Electronics	T,P	T,P									
EIE2211 Logic Design	T	P	P	T,P	P						
EIE3100 Analogue Circuit Fundamentals	T,P			T,P			T,P				
Select any 1 subject out of these 2 subjects:											
EIE3105 Integrated Project/	T,P	T,P	T,P	T,P	T,P		T,M		T,P		
ENG3002 Multidisciplinary Project			T,P		T,P		T,P				T,P
EIE3311 Computer System Fundamentals	T	P	T								
EIE3312 Linear Systems	T,P	T,P	T,P	T	P					T	P
EIE3331 Communication Fundamentals	T	T,P	T,P	T	T,P				T		T
EIE4413 Digital Signal Processing	T,M	P	T	T	P					T	
ENG2002 Computer Programming			T,P	T,P	T,P						T,P
ENG2003 Information Technology				T,P	T,P						
Compulsory - Language and Complementary Studies											
CBS3241P Professional Communication in Chinese									T,P		
ELC3521 Professional Communication in English									T,P		
AF3625 Engineering Economics						T,P	T,P		T,P	T,P	
ENG3003 Engineering Management						T					
ENG3004 Society and The Engineer						T,P,M	T,P, M	T,P, M	T,P		
Compulsory - Capstone Project											
EIE4433 Honours Project+	T,P,M	T,P,M	T,P,M	T,P,M	T,P,M	T,P,M	T,P		T,P,M	T,P,M	T,P,M
Compulsory - Industrial Centre Training											
IC2114 Industrial Centre Training I for EIE	T,P				T,P			T		T	
IC3114 Industrial Centre Training II for EIE	T,P		T,P		T,P		T,P	T,P	T,P	T	T,P
Elective - Engineering Subjects (Select Any 5)											
EIE3109 Mobile Systems and Application Development			T,P		T,P						T,P
EIE3110 Research Methodology	T	T		T					T	T	
EIE3112 Database System	T				T						
EIE3305 Integrated Analogue and Digital Circuits	T,P			T,P	T,P		T,P				
EIE3306 IC Technology and Processes	T,P	T,P					T,P		T,P		
EIE3320 Object-Oriented Design and Programming	T		T,P	T,P	P		P				P
EIE3333 Data and Computer Communications	T	T,P		T	T,P		P				
EIE3338 Applied Electromagnetics	T		T,P	T							T
EIE4100 Computer Vision and Pattern Recognition	T	T	T	T	T		T			T	
EIE4102 IP Networks	T				T,P	T				T	
EIE4103 Mobile Computer System Architecture				T	T,P						T,P
EIE4104 Mobile Networking	T				T,P	T				T	
EIE4105 Multimodal Human Computer Interaction Technology	T,P				T,P						T,P
EIE4106 Network Management and Security	T	T,P	T	T	T,P				T	T	
EIE4107 Wireless Communications	T	T		T,M	T		T		T		
EIE4108 Distributed Systems and Cloud Computing	T,P		T,P	T	P,M				T,P		P
EIE4110 Introduction to VLSI and Computer-Aided Circuit Design	T,P	T,P,M		T,P			T,P				

CURRICULUM MAP
Alignment of Subjects with Programme Intended Learning Outcomes

	Programme Outcomes										
	1	2	3	4	5	6	7	8	9	10	11
EIE4111 Advanced VLSI and Computer-Aided Circuit Design	T,P	T,P,M		T,P			T,P				
EIE4402 Power Electronics	T,P,M	T,P,M		T,P			T,P				
EIE4414 Computer Architecture and Systems	T	P		T,M	T						P
EIE4415 Multimedia Technology	T,P	P,M		T							P
EIE4432 Web Systems and Technologies	T		T,P							T	
EIE4435 Image and Audio Processing	T,M	P		P			P				
EIE4448 Bioengineering Signals and Systems	T	P			T,M						
EIE4449 Optical Communication Systems and Networks	T	T,P	T	T,M			T		T		
EIE4450 Nanoscience and Technology for Electronic Engineering	T	T				T					T
EIE4451 Circuits for Telecommunications	T,P		T,P,M	T,P			T,P				
ENG4001 Project Management			T,P		T,P				T,P		

Note:

Programme Outcomes:

1. Understand the fundamentals of science and engineering, and have the ability to apply them.
2. Design and conduct experiments, as well as to evaluate the outcomes.
3. Design systems, components and processes to meet given specifications and constraints.
4. Identify, formulate and solve problems relevant to EIE.
5. Have the ability to use modern engineering/IT tools appropriate to EIE practice.
6. Have a knowledge of contemporary issues, and understand the impact of engineering solutions in a global and societal context.
7. Be able to work with others collaboratively in a team and have a knowledge of leadership.
8. Recognize social, professional and ethical responsibility.
9. Communicate effectively.
10. Recognize the need for life-long learning
11. Be able to participate in creative activities.

T: Teach
P: Practise
M: Measured
+: Support of outcomes depends on particular project/subject design and requirements

Different types of GPA, and their calculation methods

Types of GPA	Purpose	Rules for GPA calculation
GPA	Determine Progression/ Graduation	(1) All academic subjects taken by the student throughout his 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. (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 4 subjects, will be included in the calculation to determine the Honours classifications. (5) The weighted GPA will be the same as the Award GPA unless a student has taken more subjects than required.

Types of GPA	Purpose	Rules for GPA calculation
Major/Minor GPA	For reference and determination of award classification	*Major/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. (Ref. Section 34.3) *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

University Graduation Requirements for 4-year Full-time Undergraduate Degree Programmes Offered from 2014/15 Onward

All candidates qualifying for a 4-year Full-time Undergraduate Degree offered from 2014/15 onward must meet:

1. the University Graduation Requirements, and
2. the specific graduation requirements of their chosen programme of study.

The minimum University Graduation Requirements are explained in the sections below. For the graduation requirements of specific programmes of study (Majors and Minors), candidates should refer to the relevant section of the Definitive Programme Document or consult the programme-offering Departments concerned.

Summary of University Graduation Requirements for Normal Year 1 Intake

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

1. Complete successfully a minimum of 120 credits[1] .
2. Earn a cumulative GPA (or both a Major GPA[2] and Minor GPA[2] if applicable) of 2.00 or above at graduation.
3. Complete successfully the mandatory Work-Integrated Education (WIE) component as specified by their programme/Major.
4. Satisfy the following requirements in general education:

(a) Language and Communication Requirements[3]	9 credits
(b) Freshman Seminar	3 credits
(c) Leadership and Intra-Personal Development	3 credits
(d) Service-Learning	3 credits
(e) Cluster Areas Requirement (CAR)	12 credits
(f) China Studies Requirement	(3 of the 12 CAR credits)
(g) Healthy Lifestyle[4]	Non-credit bearing
	Total = 30 credits

Summary of University Graduation Requirements for Senior Year Intake

Area and Credit Requirement	**Curriculum Requirement**
Language and Communication Requirements (LCR) [9 credits; 6 credits in English and 3 credits in Chinese]	• Students would be considered for credit transfer based on their previous studies in AD/HD programmes and their academic performance.

[1] This minimum only applies to Normal Year 1 Intake. Also, for passing a subject which is designed to fulfil the credit requirement of different types of subject, students will be regarded as having fulfilled the credit requirements of the particular types of subject concerned. Nevertheless, the subject itself will only be counted once in the student's total credit requirements, and the students will be required to make up the total credit requirement by taking another subject.

[2] These requirements are applicable with effect from the 2012/13 cohorts of intakes, including students on Foundation Year programmes in 2011/12 who progress to stage 1 of FT undergraduate degree programmes in 2012/13. However, these are not applicable to students admitted to Senior Years in 2012/13 either on advanced standing or under the Senior Year quota.

[3] Non-Chinese speakers and those students whose Chinese standards are at junior secondary level or below will by default be exempted from the DSR - Chinese and CAR - Chinese Reading and Writing requirements. However, this group of students would still be required to take one Chinese LCR subject to fulfil their Chinese LCR.

[4] Students admitted to the programmes as Senior Year Intakes are not required to take the Healthy Lifestyle Programme. Full-time Advanced Standing students who are not holders of AD/HD are still required to take the Healthy Lifestyle Programme.

Area and Credit Requirement	Curriculum Requirement
Cluster-Area Requirements (CAR) [12 credits; min. 3 credits should be in subject designated as "China-related"]	• Students will be given credit transfer of a minimum of 6 credits. • Students should not take all the remaining 6 credits from the same cluster area and these 6 credits should also not be taken from the same cluster areas from which credit transfers have been given. • Students need to fulfill the English and Chinese reading and writing requirements and 3 credits of China Studies requirement (CSR). • Students may apply for a waiver if they have fulfilled the English and Chinese reading and writing requirements and/or CSR requirement in their previous studies.
Freshman Seminars [3 credits]	• This is not required, in view that students have already completed the AD/HD studies in the related discipline.
Leadership & Intra-personal Development [3 credits]	• This is not required, in view that students are comparatively more mature than the freshmen of 4-year programmes.
Service Learning [3 credits]	• This is required. • Prior to its full implementation, students may take a 3-credit free elective in lieu of the Service Learning requirement
Healthy Lifestyle [non-credit bearing]	• This is not required.

(a) Language and Communication Requirements (LCR)

English

All undergraduate students must successfully complete two 3-credit English language subjects as stipulated by the University (Table 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).

Students who can demonstrate that they have achieved a level beyond that of the LCR proficient level subjects as listed in Table 2 (based on an assessment by ELC) may apply for subject exemption or credit transfer of the LCR subject or subjects concerned.

Table 1: Framework of English LCR subjects

HKDSE	Subject 1	Subject 2
Level 5 or equivalent	Advanced English for University Studies (ELC1014) 3 credits	Any one LCR Proficient level subject in English (see Table 2) 3 credits
Level 4 or equivalent	English for University Studies (ELC1013) 3 credits	Advanced English for University Studies (ELC1014) 3 credits
Level 3 or equivalent	Practical English for University Studies (ELC1011) 3 credits	English for University Studies (ELC1013) 3 credits

Table 2: LCR Proficient level subjects in English

For students entering with HKDSE Level 5, or at an equivalent level or above	Advanced English Reading and Writing Skills (ELC2011)	3 credits each
	Persuasive Communication (ELC2012)	
	English in Literature and Film (ELC2013)	

Chinese

All undergraduate students are required to successfully complete one 3-credit Chinese language subject as stipulated by the University (Table 3). These Chinese subjects are designed to suit students' different levels of Chinese language proficiency at entry, as determined by their HKDSE score or the Chinese Language Centre (CLC) entry assessment (when no HKDSE score is available). Students can also opt to take additional Chinese LCR subjects (Table 5) in their free electives.

Students who are non-Chinese speakers (NCS), or whose Chinese standards are at junior secondary level or below, will also be required to take one LCR subject specially designed to suit their language background and entry standard as shown in Table 4.

Students who can demonstrate that they have achieved a level beyond that of the course "Advanced Communication Skill in Chinese" as listed in Table 3 (based on an assessment made by CLC) may apply for subject exemption or credit transfer of the LCR subject concerned.

Table 3: Framework of Chinese LCR subjects

HKDSE	Required Subject
HKDSE Level 4, 5 or equivalent	CBS1102P Advanced Communication Skills in Chinese (ACSC) 3 credits
HKDSE Level 3 or equivalent	CBS1101P Fundamentals of Chinese Communication (FCC) 3 credits
For non-Chinese speakers or students whose Chinese standards are at junior secondary level or below	One subject from Table 4 below

Table 4: Chinese LCR Subjects for non-Chinese speakers or students whose Chinese standards are at junior secondary level or below

Subject	Pre-requisite/exclusion	
CBS1151 Chinese I (for non-Chinese speaking students)	For non-Chinese speaking students at beginners' level	3 credits each
CBS1152 Chinese II (for non-Chinese speaking students)	• For non-Chinese speaking students; and • Students who have completed Chinese I or equivalent	
CBS2151 Chinese III (for non-Chinese speaking students)	• For non-Chinese speaking students at higher competence levels; and • Students who have completed Chinese II or equivalent	
CBS2152 Chinese Literature – Linguistics	For non-Chinese speaking students at higher competence levels	

Subject	Pre-requisite/exclusion	
and Cultural Perspective (for non-Chinese speaking students)		

Table 5: Other LCR Electives in Chinese

Subject	Pre-requisite/exclusion	
CBS2103P Chinese and the Multimedia	• For students entering with HKDSE Level 4 or above; or • Students with advanced competence level as determined by the entry assessment; or • Students who have completed "Fundamentals of Chinese Communication"	3 credits each
CBS2102P Creative Writing in Chinese	• For students entering with HKDSE Level 4 or above; or • Students with advanced competence level as determined by the entry assessment; or • Students who have completed "Fundamentals of Chinese Communication"	
CBS1153/CBS1153P Elementary Cantonese	For students whose native language is not Cantonese	
CBS2101P Putonghua in the Workplace	• Students who have completed "Fundamentals of Chinese Communication" or could demonstrate the proof with basic Putonghua proficiency • For students whose native language is not Putonghua	

Writing Requirement in CAR Subjects

In additional to the LCR in English and Chinese explained above, all students must also, among the Cluster Areas Requirement (CAR) subjects they take (see section (e) 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.

Reading Requirement in CAR Subjects

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.

A list of approved CAR subjects for meeting the Writing Requirement (with a "W" designation) and for meeting the Reading Requirement (with an "R" designation) is shown at: https://www2.polyu.edu.hk/as/Polyu/GUR/index.htm

Non-Chinese speakers and those students whose Chinese standards are at junior secondary level or below will by default be exempted from the DSR - Chinese and CAR - Chinese Reading and Writing requirements. However, this group of students would still be required to take one Chinese LCR subject to fulfil their Chinese LCR.

Note: In addition to the LCR and Reading and Writing Requirements, students also have to complete 4 credits of discipline-specific language requirements (2 credits in English and 2 credits in Chinese) as specified in the curriculum requirements of their Major.

(b) Freshman Seminar

All students must successfully complete, normally in their first year of study, one 3-credit Freshman Seminar offered by their chosen Broad Discipline. The purpose is to (i) introduce students to their chosen discipline and enthuse them about their major study, (ii) cultivate students' creativity, problem-solving ability and global outlook, (iii) give students an exposure to the concepts of, and an understanding of, entrepreneurship, and (iv) engage students, in their first year of study, in desirable forms of university learning that emphasises self-regulation, autonomous learning and deep understanding.

A list of Freshman Seminars offered by the Broad Disciplines can be found at:
https://www2.polyu.edu.hk/as/Polyu/GUR/index.htm

(c) Leadership and Intra-Personal Development

All students must successfully complete one 3-credit subject in the area of Leadership and Intra-Personal Development, which is designed to enable students to (i) understand and integrate theories, research and concepts on the qualities (particularly intra-personal and interpersonal qualities) of effective leaders in the Chinese context, (ii) develop greater self-awareness and a better understanding of oneself, (iii) acquire interpersonal skills essential for functioning as an effective leader, (iv) develop self-reflection skills in their learning, and (v) recognise the importance of the active pursuit of knowledge on an intra-personal and interpersonal level and its relationship to leadership qualities.

A list of designated subjects for meeting the leadership and intra-personal development requirement is available at: https://www2.polyu.edu.hk/as/Polyu/GUR/index.htm

(d) Service-Learning

All students must successfully complete one 3-credit subject designated to meet the Service-Learning Requirement, in which they are required to (i) participate in substantial community service or civic engagement activities that will benefit the service users or the community at large in a meaningful way, (ii) apply the knowledge and skills acquired from their Major or other learning experiences at the University to the community service activities, and (iii) 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.

These subjects may take the form of:

- An open-to-all GUR service-learning subject
- A GUR service-learning subject targeted at a particular student group (e.g. a Broad Discipline), or
- A customised DSR subject (core or elective) within the Major/Minor with all the required features and components to meet the Service-Learning Requirement.

Students who have satisfied the Service-Learning Requirement via a customised DSR subject will be required to take another 3-credit subject to make up for the total credit requirement.

A list of designated subjects for meeting the service-learning requirement is available at: https://www2.polyu.edu.hk/as/Polyu/GUR/index.htm

(e) Cluster Areas Requirement (CAR)

To expand students' intellectual capacity beyond their disciplinary domain and to enable them to tackle professional and global issues from a multidisciplinary perspective, students are required to successfully complete at least one 3-credit subject in each of the following four Cluster Areas:

- Human Nature, Relations and Development
- Community, Organisation and Globalisation
- History, Culture and World Views
- Science, Technology and Environment

A list of CAR subjects under each of the four Cluster Areas is available at:
https://www2.polyu.edu.hk/as/Polyu/GUR/index.htm

(f) China Studies Requirement

Of the 12 credits of CAR described in (e) above, students are required to successfully complete a minimum of 3 credits on CAR subjects designated as "China-related". The purpose is to enable students to gain an increased understanding of China (e.g. its history, culture and society, as well as emerging issues or challenges).

A list of approved CAR subjects for meeting the China Studies Requirement is available at:
https://www2.polyu.edu.hk/as/Polyu/GUR/index.htm

(g) Healthy Lifestyle

Healthy lifestyle is the platform for all-round development. All students are required to successfully complete a non-credit-bearing programme in healthy lifestyle offered by the Student Affairs Office. The programme will cover: (i) fitness evaluation, (ii) concepts on health and fitness, (iii) sports skills acquisition, and (iv) exercise practicum. More details can be found at: http://www.polyu.edu.hk/sao/hlr

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