

## 5. PROGRAMME, SUBJECTS, AND CREDITS

Most of the subjects in the programme are of the standard credit value of 3 credits each. The programme includes Level 1, Level 2 and Level 3 subjects. ('Level' of a subject indicates the intellectual demand placed upon students.)

5.1 A summary of the subjects in the programme is shown in the following table. The subjects offered will be updated from time to time according to the trend of the society and the profession.

Subject	Status	Level	Credits	Pre-requisite
<b>General University Requirements (GUR)</b>				
Cluster Areas Requirement (CAR) I #	COM	-	3	Nil
Cluster Areas Requirement (CAR) II #	COM	-	3	Nil
HD Language and Communication Requirement (HDLCR) / Language and Communication Requirement (LCR) I – English *	COM	-	3	Nil
HD Language and Communication Requirement (HDLCR) / Language and Communication Requirement (LCR) II – English *	COM	-	3	Nil
HD Language and Communication Requirement (HDLCR) / Language and Communication Requirement (LCR) III – Chinese *	COM	-	3	Nil
<b>Discipline-Specific Requirements (DSR)</b>				
AMA1110 Basic Mathematics I – Calculus and Probability & Statistics	COM	1	3	Nil
AMA1120 Basic Mathematics II – Calculus and Linear algebra	COM	1	3	AMA1110
AP10001 Introduction to Physics	COM <sup>(1)</sup>	1	3	Nil
AP10009 University Physics II	COM	1	3	Nil
AMA2111 Mathematics I	COM	2	3	AMA1101 or AMA1102 or AMA1120
EIE2101 Basic Circuit Analysis	COM	2	3	Nil
EIE2102 Basic Electronics	ELE	2	3	EIE2101
EIE2261 Logic Design	COM	2	3	Nil
EIE2264 Computer Programming	COM	2	3	Nil
EIE2282 Information Technology	COM	2	3	Nil
EIE3106 Integrated Project	COM	3	3	EIE2101, EIE2264 and EIE3373
EIE3112 Database System	COM	3	3	Nil

Subject	Status	Level	Credits	Pre-requisite
EIE3311 Computer System Fundamentals	COM	3	3	EIE2261
EIE3312 Linear Systems	ELE	3	3	AMA2111
EIE3320 Object-Oriented Design and Programming	ELE	3	3	EIE2264
EIE3331 Communication Fundamentals	COM	3	3	AMA2111
EIE3333 Data and Computer Communications	ELE	3	3	Nil
EIE3373 Microcontroller Systems and Interface	COM	3	3	EIE2261
IC2115 Industrial Centre Training for EIE	TRN	2	3 (training credits)	Nil

**Note:**

AMA Department of Applied Mathematics

AP Department of Applied Physics

COM Compulsory

EIE Department of Electronic and Information Engineering

ELE Elective

IC Industrial Centre

TRN Training

\* Details of the HD Language and Communication Requirement (HDLCR)/ Language and Communication Requirement (LCR) are set out in Section 5.4.

# 6 credits of Cluster Areas Requirement (CAR) and one of which (3 credits) should be in subjects designated as 'China-related' (China Study Requirement).

(1) For students who do not have Level 2 or above in HKDSE Physics or Combined Science with Physics only.

## 5.2 Specified Progression Pattern

In order to be eligible for the award, students have to accumulate at least 63 academic credits (excluding the training credits from practical training), pass all compulsory subjects and practical training in the Industrial Centre (IC2115).

Students are normally expected to follow the specified progression pattern for discipline-specific subjects. Approval from the Department is required if students do not wish to follow the specified pattern. All compulsory discipline-specific subjects are non-deferrable.

### 5.2.1 HKDSE Students with Level 2 or above in HKDSE Physics or Combined Science with Physics

Semester	Subject	Credits	Type
<b>Year 1 Semester 1</b> (13.5 credits + 2 training credits)	HDLCR/ LCR I – English	3	LCR
	AMA1110 Basic Mathematics I – Calculus and Probability & Statistics	3	DSR
	CAR I*	3	CAR
	EIE2282 Information Technology	3	DSR
	EIE2264 Computer Programming	1.5	DSR
	IC2115 Industrial Centre Training for EIE	2	DSR (training)
<b>Year 1 Semester 2</b> (13.5 credits + 1 training credit)	HDLCR/ LCR II– English	3	LCR
	AMA1120 Basic Mathematics II –Calculus and Linear algebra	3	DSR
	EIE2264 Computer Programming (Continued)	1.5	DSR
	AP10009 University Physics II	3	DSR
	EIE2261 Logic Design	3	DSR
	IC2115 Industrial Centre Training for EIE (Continued)	1	DSR (training)
<b>Year 1 Summer</b> (6 credits)	EIE2101 Basic Circuit Analysis	3	DSR
	CAR II*	3	CAR
<b>Year 2 Semester 1</b> (15 credits)	AMA2111 Mathematics I	3	DSR
	HDLCR/ LCR III– Chinese	3	LCR
	EIE3311 Computer System Fundamentals	3	DSR
	EIE3373 Microcontroller Systems and Interface	3	DSR
	Elective 1	3	DSR
<b>Year 2 Semester 2</b> (15 credits)	EIE3106 Integrated Project	3	DSR
	EIE3112 Database System	3	DSR
	EIE3331 Communication Fundamentals	3	DSR
	Elective 2	3	DSR
	Elective 3	3	DSR

#### Total Number of Credits: 63

\* The study pattern for GUR subjects is indicative only. Students may take these subjects according to their own schedule.

5.2.2 HKDSE Students without Level 2 or above in HKDSE Physics or Combined Science with Physics

Semester	Subject	Credits	Type
<b>Year 1 Semester 1</b> (13.5 credits + 2 training credits)	AP10001 Introduction to Physics	3	DSR (Add.)
	HDLCR/ LCR I – English	3	LCR
	AMA1110 Basic Mathematics I – Calculus and Probability & Statistics	3	DSR
	EIE2282 Information Technology	3	DSR
	EIE2264 Computer Programming	1.5	DSR
	IC2115 Industrial Centre Training for EIE	2	DSR (training)
<b>Year 1 Semester 2</b> (16.5 credits + 1 training credit)	HDLCR/ LCR II– English	3	LCR
	AMA1120 Basic Mathematics II – Calculus and Linear algebra	3	DSR
	AP10009 University Physics II	3	DSR
	EIE2264 Computer Programming (Continued)	1.5	DSR
	CAR I*	3	CAR
	EIE2261 Logic Design	3	DSR
	IC2115 Industrial Centre Training for EIE (Continued)	1	DSR (training)
<b>Year 1 Summer</b> (6 credits)	EIE2101 Basic Circuit Analysis	3	DSR
	CAR II*	3	CAR
<b>Year 2 Semester 1</b> (15 credits)	AMA2111 Mathematics I	3	DSR
	HDLCR/ LCR III– Chinese	3	LCR
	EIE3311 Computer System Fundamentals	3	DSR
	EIE3373 Microcontroller Systems and Interface	3	DSR
	Elective 1	3	DSR
<b>Year 2 Semester 2</b> (15 credits)	EIE3106 Integrated Project	3	DSR
	EIE3112 Database System	3	DSR
	EIE3331 Communication Fundamentals	3	DSR
	Elective 2	3	DSR
	Elective 3	3	DSR

**Total Number of Credits: 66**

\* The study pattern for GUR subjects is indicative only. Students may take these subjects according to their own schedule.

5.3 Curriculum Map

Alignment of Subjects with Programme Intended Learning Outcomes:

	Programme Outcomes									
	1	2	3	4	5	6	7	8	9	10
<b>A. GENERAL UNIVERSITY REQUIREMENTS (GUR)</b>										
<b>Language and Communication Requirements (LCR)</b>										
LCR - English - ELCXXXX (2 Subjects)								T,P		
LCR - Chinese - CBSXXXX (1 Subject)								T,P		
<b>Cluster-Area Requirements (CAR) (2 Subjects)</b>										
CAR - Cluster-Area Requirement Subjects+							T,P	T,P	T,P	
<b>B. DISCIPLINE-SPECIFIC REQUIREMENTS (DSR)</b>										
<b>Compulsory - Mathematics and Basic Sciences Subjects</b>										
AMA1110 Basic Mathematics I – Calculus and Probability & Statistics				T,P	T,P				T	
AMA1120 Basic Mathematics II – Calculus and Linear Algebra				T,P	T,P				T	
AMA2111 Mathematics I				T,P	T,P				T	
AP10001 Introduction to Physics	T,P			T,P					T	
AP10009 University Physics II	T,P			T,P						
<b>Compulsory - Engineering Subjects</b>										
EIE2101 Basic Circuit Analysis	T,P,M	T,P,M					T			
EIE2261 Logic Design	T	P	P	T,P	P,M					
EIE2264 Computer Programming			T,P	T,P,M	T,P					
EIE2282 Information Technology				T,P	T,P,M	P,M				T,P,M
EIE3106 Integrated Project	T,P	T,P	T,P,M	T,P	T,P	T,M	T,P,M	T,P,M		
EIE3112 Database System	T	P			T,P			T,P,M		
EIE3311 Computer System Fundamentals	T	P,M	T,M	T						
EIE3373 Microcontroller Systems and Interface	T,P,M	T,P,M		T,P,M	T,P				T,P,M	
EIE3331 Communication Fundamentals	T	T,P	T,P	T	T,P			T	T,M	T,P,M
<b>Compulsory - Industrial Centre Training</b>										
IC2115 Industrial Centre Training for EIE	T,P				T,P		T,P,M		T	
<b>Elective - Engineering Subjects (Select Any 3)</b>										
EIE2102 Basic Electronics	T,P,M	T,P,M								
EIE3312 Linear Systems	T,P,M	T,P	T,P	T,M	P				T	
EIE3320 Object-Oriented Design and Programming	T		T,P,M	T,P	T,P	P,M	T,M			
EIE3333 Data and Computer Communications	T	T,P		T	T,P,M			T		

Note:

Programme Outcomes:

1. Understand the fundamentals of science and engineering, and have the ability to apply them.
2. Conduct experiments, as well as to evaluate the outcomes.

3. Analyse and evaluate a system, component or process of 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. Work with others collaboratively in a team.
7. Recognize professional responsibility.
8. Communicate effectively.
9. Recognize the need for life-long learning.
10. understand the impact of engineering solutions in a global and societal context.

+: Support of outcomes depends on particular project/subject design and requirements

#### 5.4 Language and Communication Requirements for Higher Diploma Programme (HDLCR)

Students are required to fulfil the Language and Communication Requirements for Higher Diploma Programmes (HDLCR) in English (6 credits) and Chinese (3 credits) as stated below in order to be eligible for graduation:

##### 5.4.1 HDLCR – English

All Higher Diploma 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 equivalent or the English Language Centre (ELC) entry assessment.

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 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
Level 2 or equivalent	University English for Higher Diploma Students I (ELC1007) 3 credits	University English for Higher Diploma Students II (ELC1008) 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)	

#### 5.4.2 HDLCR – Chinese

All Higher Diploma students must successfully complete one 3-credit Chinese language subjects successfully as stipulated by the University (Table 3). These subjects are designed to suit students' different levels of Chinese language proficiency at entry, as determined by their HKDSE score or the equivalent or the Chinese Language Centre (CLC) entry assessment.

*Table 3: Framework of Chinese LCR subjects*

HKDSE/HKALE	Required Subject
<b>HKDSE Level 4, 5 or equivalent, or HKALE Grade A, B, C</b>	CBS1102P Advanced Communication Skills in Chinese (ACSC)  3 credits
<b>HKDSE Level 3 (with no sub-score below Level 3) or equivalent, or HKALE Grade D, E (with no component below E)</b>	CBS1101P Fundamentals of Chinese Communication (FCC)  3 credits
<b>HKDSE Level 2 or equivalent</b>	CBS1103P Fundamentals of Chinese Communication for Higher Diploma Students  3 credits

## 5.5 Practical 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 the IC Training subject in order to be considered for the HD 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.