

Regulations for the degree of Bachelor of Science in Electronics and Bachelor of Science with Honours in Electronics

The programmes of Bachelor of Science in Electronics and Bachelor of Science with Honours in Electronics have been phased out from 2023 Spring term. The University will continue to confer the award of the degree of Bachelor of Science in Electronics and Bachelor of Science with Honours in Electronics up to December 2027.

1. General

- 1.1 These regulations are made under paragraphs 1 to 4 of the Regulations for the Award of Undergraduate Degrees.
- 1.2 In these regulations, definitions shall apply as in the Regulations for the Award of Undergraduate Degrees and in the Interpretation section of the Academic Rules and Regulations.

2. Entry Requirements (through Pathways)

- 2.1 To enter the **Bachelor of Science in Electronics** programme through Pathway 1 or the **Bachelor of Science with Honours in Electronics** programme through Pathway 1, a student shall normally possess a higher diploma in a discipline closely related to Electronics.
- 2.2 To enter the **Bachelor of Science in Electronics** programme through Pathway 2 or the **Bachelor of Science with Honours in Electronics** programme through Pathway 2, a student shall normally possess the Certificate in Aircraft Maintenance Engineering awarded by The Open University of Hong Kong.

3. Bachelor of Science in Electronics (BSCE)

- 3.1 To be eligible for the award of the degree of **Bachelor of Science in Electronics**, a student shall:
 - 3.1.1 comply with the Regulations for Admission, Registration and Maintenance of Status; and
 - 3.1.2 comply with the Regulations for the Award of Undergraduate Degrees; and
 - 3.1.3 obtain at least 120 credits of which no more than 40 credits shall be obtained at Foundation level; and
 - 3.1.4 obtain at least 100 credits in courses prescribed by the regulations as appropriate to the degree, including at least 20 credits in courses at Higher level.
- 3.2 For the degree of **Bachelor of Science in Electronics**, the University has prescribed that a student must:
 - 3.2.1 successfully complete 20 credits from the courses labelled F in Table 1. Where SCI S102 is taken, a student must in addition complete either MATH S112/MATH S122 or MATH S282; and
 - 3.2.2 successfully complete 50 credits from the compulsory courses (labelled CD in Table 1); and
 - 3.2.3 obtain at least 20 credits from the remaining core courses at Higher level (labelled HD in Table 1); and

- 3.2.4 obtain at least 10 credits from optional courses at Middle or Higher level (labelled OD in Table 1) (students who have taken SCI S102 and MATH S282 will have already fulfilled this regulation); and
- 3.2.5 successfully complete additional courses, as necessary, from any Foundation, Middle or Higher level courses offered by the University, provided that, of the total 120 credits, no more than 40 are gained at Foundation level.

4. Bachelor of Science in Electronics (through Pathway 1) (BSCE1)

- 4.1 To be eligible for the award of the degree of **Bachelor of Science in Electronics**, a student who entered the programme through Pathway 1 shall:
 - 4.1.1 comply with the Regulations for Admission, Registration and Maintenance of Status; and
 - 4.1.2 comply with the Regulations for the Award of Undergraduate Degrees; and
 - 4.1.3 obtain at least 40 credits in courses prescribed by the regulations as appropriate to the degree.
- 4.2 For the degree of **Bachelor of Science in Electronics**, the University has prescribed that a student who entered the programme through Pathway 1 must:
 - 4.2.1 successfully complete 20 credits from courses labelled CD or OD of which no more than 10 credits are from courses labelled OD in Table 1; and
 - 4.2.2 successfully complete 20 credits from courses labelled HD in Table 1.

5. Bachelor of Science in Electronics (through Pathway 2) (BSCE2)

- 5.1 To be eligible for the award of the degree of **Bachelor of Science in Electronics**, a student who entered the programme through Pathway 2 shall:
 - 5.1.1 comply with the Regulations for Admission, Registration and Maintenance of Status; and
 - 5.1.2 comply with the Regulations for the Award of Undergraduate Degrees; and
 - 5.1.3 obtain at least 90 credits in courses prescribed by the regulations as appropriate to the degree.
- 5.2 For the degree of **Bachelor of Science in Electronics**, the University has prescribed that a student who entered the programme through Pathway 2 must:
 - 5.2.1 obtain 10 credits from either MATH S121 or MATH S122; and
 - 5.2.2 successfully complete 50 credits from courses labelled CD in Table 1; and
 - 5.2.3 successfully complete 20 credits from courses labelled HD in Table 1; and
 - 5.2.4 obtain 10 credits from courses labelled OD in Table 1.

6. Bachelor of Science with Honours in Electronics (BSCHE)

- 6.1 To be eligible for the award of the degree of **Bachelor of Science with Honours in Electronics**, a student shall:
 - 6.1.1 comply with the Regulations for Admission, Registration and Maintenance of Status; and
 - 6.1.2 comply with the Regulations for the Award of Undergraduate Degrees; and

- 6.1.3 obtain at least 160 credits of which no more than 40 credits shall be obtained at Foundation level; and
 - 6.1.4 obtain at least 40 credits in courses at Higher level; and
 - 6.1.5 successfully complete the prescribed programme of studies.
- 6.2 For the degree of **Bachelor of Science with Honours in Electronics**, the University has prescribed that a student must:
- 6.2.1 successfully complete 20 credits from courses labelled F in Table 1. Where SCI S102 is taken, a student must in addition complete either MATH S112/MATH S122 or MATH S282; and
 - 6.2.2 successfully complete 70 credits from the compulsory courses (labelled CH in Table 1); and
 - 6.2.3 obtain at least 20 credits from the remaining core courses at Higher level (labelled EH in Table 1); and
 - 6.2.4 successfully complete 10 credits from the Computing optional courses (labelled TH in Table 1); and
 - 6.2.5 successfully complete 10 credits from the Design optional courses (labelled DH in Table 1); and
 - 6.2.6 successfully complete 10 credits from courses labelled BH; and
 - 6.2.7 successfully complete additional courses, as necessary, from any Foundation, Middle or Higher level courses offered by the University, provided that, of the total 160 credits, no more than 40 are gained at Foundation level.

7. Bachelor of Science with Honours in Electronics (through Pathway 1) (BSCHE1)

- 7.1 To be eligible for the award of the degree of **Bachelor of Science with Honours in Electronics**, a student who entered the programme through Pathway 1 shall:
- 7.1.1 comply with the Regulations for Admission, Registration and Maintenance of Status; and
 - 7.1.2 comply with the Regulations for the Award of Undergraduate Degrees; and
 - 7.1.3 obtain at least 80 credits in courses prescribed by the regulations as appropriate to the degree.
- 7.2 For the degree of **Bachelor of Science with Honours in Electronics**, the University has prescribed that a student who entered the programme through Pathway 1 must:
- 7.2.1 successfully complete 30 credits from Middle level courses labelled CH, courses labelled TH or DH in Table 1, of which at most 10 credits are allowed from each of TH or DH; and
 - 7.2.2 complete ELEC S402; and
 - 7.2.3 successfully complete 20 credits from courses labelled EH in Table 1; and
 - 7.2.4 successfully complete 10 credits from courses labelled BH in Table 1.

8. Bachelor of Science with Honours in Electronics (through Pathway 2) (BSCHE2)

- 8.1 To be eligible for the award of the degree of **Bachelor of Science with Honours in Electronics**, a student who entered the programme through Pathway 2 shall:

- 8.1.1 comply with the Regulations for Admission, Registration and Maintenance of Status; and
- 8.1.2 comply with the Regulations for the Award of Undergraduate Degrees; and
- 8.1.3 obtain at least 130 credits in courses prescribed by the regulations as appropriate to the degree.
- 8.2 For the degree of **Bachelor of Science with Honours in Electronics**, the University has prescribed that a student who entered the programme through Pathway 2 must:
- 8.2.1 obtain 10 credits from either MATH S121 or MATH S122; and
- 8.2.2 successfully complete 70 credits from courses labelled CH in Table 1; and
- 8.2.3 successfully complete 20 credits from courses labelled EH in Table 1; and
- 8.2.4 successfully complete 10 credits from courses labelled TH in Table 1; and
- 8.2.5 successfully complete 10 credits from courses labelled DH in Table 1; and
- 8.2.6 successfully complete 10 credits from courses labelled BH in Table 1; and
9. Each degree with Honours shall be conferred with a classification of First Class, Second Class (Upper Division), Second Class (Lower Division) or Third Class save that exceptionally a degree may be conferred without classification.
10. Subject to the requirement of the relevant programme of study, each person on whom an Honours degree is to be conferred shall be assigned to a classification determined by the University according to its regulations.
11. For the calculation of scores for classification purposes in the degree of **Bachelor of Science with Honours in Electronics**, the University has deemed that "Group (a)" shall consist of course ELEC S402 The Project Course plus the best 20 credits in courses at Higher level listed in Table 1, and that "Group (b)" shall consist of the best 40 credits in courses at Higher or Middle level listed in Table 1, where such credits are not taken into account in "Group (a)". Further, that "X" shall equal two, that is "Group (a)" shall be weighted at twice the value of "Group (b)". (Refer to the paragraphs on Classification of the Degree with Honours of the Regulations for the Award of Undergraduate Degrees.)

Table 1: Courses currently on offer (Phased out courses that can be counted towards the degree are listed in note 5)

Course Code	Course Title	Credits	BSCE	BSCHE	Honours Classification Group
<i>Foundation level</i>					
BUS B103 ^{1,3,5}	English and Communications for Business I	5	F	F	--
MATH S121 ^{1,2,5}	A Foundation in Pure Mathematics	10	F	F	--
MATH S122 ^{1,2,5}	A Foundation in Applied Mathematics	10	F	F	--
SCI S123 ^{1,5}	Foundation Physics	5	F	F	--

Course Code	Course Title	Credits	BSCE	BSCHE	Honours Classification Group
SCI S124 ^{1,5}	Foundation Chemistry	5	F	F	--
<i>Middle level</i>					
ELEC S222 ^{1,5}	Electronics Principles and Digital Design	10	CD	CH	b
ELEC S225 ^{1,5}	Analogue Circuits	10	CD	CH	b
MATH S221 ^{1,5}	Mathematical Methods	10	CD	CH	b
MATH S222 ^{1,5}	Mathematical Models with Applications	10	CD	CH	b
PHYS S271	Discovering Physics	10	CD	CH	b
MGT B240 ¹	Principles and Practices of Management	5	OD	BH	b
DESN S217 ^{1,5}	Design Essentials	10	OD	DH	b
COMP S201 ¹	Computing Fundamentals with Java	10	OD	TH	b
COMP S258	Computer Programming and Problem Solving	10	OD	TH	b
COMP S260 ¹	Computer Architecture and Operating Systems	10	OD	TH	b
ELEC S212	Network Programming and Design	10	OD	TH	b
ELEC S224 ^{1,5}	Computers and Processors	10	OD	TH	b
ENGG S228 ³	Engineers in Society	5	F/OD	F/BH	b
<i>Higher level</i>					
MGT B347 ^{1,5}	Managing People and Organizations	10	OD	BH	a or b
TC S319 ^{1,5}	Quality Management for Science and Technology	5	OD	BH	a or b
TC S409 ^{1,5}	Safety and Reliability for Science and Technology	5	OD	BH	a or b
ENGG S362	Design and Innovation	10	OD	DH	a or b
MATH S365 ¹	Graphs, Networks and Design	10	OD	DH	a or b
COMP S311 ¹	Advanced Java Programming and Mobile Application Development	10	OD	TH	a or b

Course Code	Course Title	Credits	BSCE	BSCHE	Honours Classification Group
COMP S356 ¹	Software Engineering and Project Management	10	OD	TH	a or b
COMP S359 ^{1,5}	Relational Databases: Theory and Practice	10	OD	TH	a or b
ELEC S323 ¹	Information Theory and Digital Communications	10	HD/OD	EH	a or b
ELEC S334	Signal Processing and Multimedia Technology	10	HD/OD	EH	a or b
ENGG S356	Engineering Small Worlds: Micro and Nano Technologies	10	HD/OD	EH	a or b
MECH S395	Mechatronics	10	HD/OD	EH	a or b
ELEC S402	Electronics Project Course	20	--	CH	a ⁴

Notes:

1. This course forms an excluded combination with other course(s). Only one of the courses in the [excluded combination](#) can be counted towards an HKMU award. Students should refer to the list of [excluded combinations](#) for details.
2. Students who are weak in mathematics are strongly advised to take either MATH S121 or MATH S122 in courses labelled F.
3. Students in BSc with Honours programme intending to apply for membership of professional engineering societies are advised to take BUS B103 and ENGG S228.
4. Course ELEC S402 will be compulsorily included in "Group(a)" for Honours Classification purposes.
5. The following phased out courses are no longer available. Students who have successfully completed any of these courses can have the credits awarded for the phased out course(s) counted towards the BSCE/BSCHE programmes, and are deemed to have completed corresponding replacement course(s), if any, subject to the requirements of relevant regulations.

Table 2: Phased out courses

Phased out Courses			Replacement courses			Label		Honours Classification Group	Note
Course Code	Course Title	Course credits	Course Code	Course Title	Course credits	BSC E	BSCH E		
BUS B100	Business Communication	5	BUS B103	English and Communications for Business I	5	F	F	N/A	--
COMP S205	Fundamentals of Computing	20	No replacement			OD	TH	b	--
COMP S210	Computing Fundamentals	10	No replacement			OD	TH	b	--
COMP S357	Data Models and Databases	10	COMP S359	Relational Databases: Theory and Practice	10	OD	TH	a or b	--
COMP S358	Relational Databases	10	COMP S359	Relational Databases: Theory and Practice	10	OD	TH	a or b	--
COMP S366	Computer and Network Architectures	10	No replacement			OD	TH	a or b	--
DESN S364	Fundamentals of Interaction Design	10	No replacement			OD	DH	a or b	--
ELEC S202	Analogue and Digital Electronics	20	ELEC S222	Electronics Principles and Digital Design	10	CD	CH	b	--
			ELEC S225	Analogue Circuits	10	CD	CH	b	--
ELEC S203	The Digital Computer	10	ELEC S224	Computers and Processors	10	OD	TH	b	--
ELEC S223	Microprocessor-based Computers	10	ELEC S224	Computers and Processors	10	OD	TH	b	--
ELEC S396	Artificial Intelligence for Technology	10	No replacement			OD	TH	a or b	--
ELEC S322	Digital Telecommunications	10	No replacement			HD/OD	EH	a or b	--
ELEC S354	Inside Electronic Devices	10	No replacement			HD/OD	EH	a or b	--
ELEC S393	Electronic Materials and Devices	10	No replacement			HD/OD	EH	a or b	--
ENGG S238	Quality and Reliability	10	SCI S319/TC S319	Quality Management for Science and Technology	5	OD	BH	b	--
			SCI S409/TC S409	Safety and Reliability for Science and Technology	5	OD	BH	b	--

Phased out Courses			Replacement courses			Label		Honours Classification Group	Note
Course Code	Course Title	Course credits	Course Code	Course Title	Course credits	BSC E	BSCH E		
MATH S101	Mathematics: A Foundation Course	20	No replacement			F	F	N/A	--
MATH S111	A Foundation in Pure Mathematics	10	MATH S121	A Foundation in Pure Mathematics	10	F	F	N/A	1
MATH S112	A Foundation in Applied Mathematics	10	MATH S122	A Foundation in Applied Mathematics	10	F	F	N/A	1
MATH S204	Mathematical Models and Methods	20	MATH S221	Mathematical Methods	10	CD	CH	b	--
			MATH S222	Mathematical Models with Applications	10	CD	CH	b	--
MATH S207	Mathematical Methods, Models and Modelling	20	MATH S221	Mathematical Methods	10	CD	CH	b	--
			MATH S222	Mathematical Models with Applications	10	CD	CH	b	--
MATH S261	Mathematics in Computing	10	No replacement			OD	TH	b	--
MATH S282	Modelling with Mathematics: An Introduction	10	No replacement			F	F	b	--
MATH S361	Graphs, Networks and Design	10	MATH S365	Graphs, Networks and Design	10	OD	DH	a or b	--
MATH S353	Programming and Programming Languages	10	No replacement			OD	TH	a or b	--
MATH S355	Topics in Software Engineering	10	No replacement			OD	TH	a or b	--
MATH S371	Computational Mathematics	10	No replacement			OD	TH	a or b	--
MECH S264	Design: Principles and Practice	10	DESN S217	Design Essentials	10	OD	DH	b	--
MECH S363	Computer-aided Design	10	No replacement			OD	DH	a or b	--

Phased out Courses			Replacement courses			Label		Honours Classification Group	Note
Course Code	Course Title	Course credits	Course Code	Course Title	Course credits	BSC E	BSCH E		
MECH S394	Control Engineering	10	No replacement			HD/OD	EH	a or b	--
MGT B290	Organizational Behaviour	5	No replacement			OD	BH	b	--
MGT B343	Managing in Organizations	10	MGT B344	Theory and Design of Organizations	5	OD	BH	a or b	--
			MGT B345	Managing in Organizations	5	OD	BH	a or b	--
MGT B344	Theory and Design of Organizations	5	MGT B347	Managing People and Organizations	10	OD	BH	a or b	--
MGT B345	Managing in Organizations	5							
SCI S102	A Science Foundation Course	20	No replacement			F	F	N/A	--
SCI S111	A Foundation Course in Physics and Chemistry	10	SCI S121	A Foundation Course in Physics and Chemistry	10	F	F	N/A	--
SCI S121	A Foundation Course in Physics and Chemistry	10	SCI S123	Foundation Physics	5	F	F	N/A	--
			SCI S124	Foundation Chemistry	5	F	F	N/A	--
SCI S319	Quality Management for Science and Technology	5	TC S319	Quality Management for Science and Technology	5	OD	BH	a or b	1
SCI S409	Safety and Reliability for Science and Technology	5	TC S409	Safety and Reliability for Science and Technology	5	OD	BH	a or b	1

Note to Table 2:

1. Change of course code

November 2022