HONG KONG METROPOLITAN UNIVERSITY

Regulations for the degree of Bachelor of Science in Computer Engineering and Bachelor of Science with Honours in Computer Engineering

The programmes of Bachelor of Science in Computer Engineering and Bachelor of Science with Honours in Computer Engineering have been phased out from 2021 Spring term. The University will continue to confer the award of the degree of Bachelor of Science in Computer Engineering and Bachelor of Science with Honours in Computer Engineering up to December 2025.

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 Computer Engineering** programme through Pathway 1 or the **Bachelor of Science with Honours in Computer Engineering** programme through Pathway 1, a student shall normally possess a higher diploma in a discipline closely related to Computer Engineering.

2.2 To enter the **Bachelor of Science in Computer Engineering** programme through Pathway 2 or the **Bachelor of Science with Honours in Computer Engineering** programme through Pathway 2, a student shall normally possess a higher diploma in computer software related disciplines.

2.3 To enter the **Bachelor of Science in Computer Engineering** programme through Pathway 3 or the **Bachelor of Science with Honours in Computer Engineering** programme through Pathway 3, a student shall normally possess a higher diploma in Electronics related disciplines.

3. Bachelor of Science in Computer Engineering (BSCCE)

3.1 To be eligible for the award of the degree of **Bachelor of Science in Computer Engineering**, 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 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 Computer Engineering**, the University has prescribed that a student must:

3.2.1 successfully complete 20 credits from courses labelled F in Table 1, by selecting 10 credits from MATH S121 and MATH S122, and 10 credits from IT S123 and IT S101; 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 specialized computer engineering courses labelled HD in Table 1; and

3.2.4 obtain at least 10 credits from optional courses labelled OD in Table 1; 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 Computer Engineering (through Pathway 1) (BSCCE1)

4.1 To be eligible for the award of the degree of **Bachelor of Science in Computer Engineering**, 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 Computer Engineering**, 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 in Table 1; and

4.2.2 successfully complete 20 credits from courses labelled HD in Table 1.

5. Bachelor of Science in Computer Engineering (through Pathway 2) (BSCCE2)

5.1 To be eligible for the award of the degree of **Bachelor of Science in Computer Engineering**, 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 50 credits in courses prescribed by the regulations as appropriate to the degree.

5.2 For the degree of **Bachelor of Science in Computer Engineering**, the University has prescribed that a student who entered the programme through Pathway 2 must:

5.2.1 successfully complete 30 credits from courses labelled CD (excluding COMP S258 and COMP S260) in Table 1; and

5.2.2 successfully complete 20 credits from courses labelled HD in Table 1.

6. Bachelor of Science in Computer Engineering (through Pathway 3) (BSCCE3)

6.1 To be eligible for the award of the degree of **Bachelor of Science in Computer Engineering**, a student who entered the programme through Pathway 3 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 50 credits in courses prescribed by the regulations as appropriate to the degree.

6.2 For the degree of **Bachelor of Science in Computer Engineering**, the University has prescribed that a student who entered the programme through Pathway 3 must:

6.2.1 complete COMP S260 and ELEC S224; and

6.2.2 successfully complete 20 credits from courses labelled HD in Table 1; and

6.2.3 successfully complete 10 credits from courses labelled OD in Table 1.

7. Bachelor of Science with Honours in Computer Engineering (BSCHCE)

7.1 To be eligible for the award of the degree of **Bachelor of Science with Honours in Computer Engineering**, a student 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 160 credits of which no more than 40 credits shall be obtained at Foundation level; and

7.1.4 obtain at least 40 credits in courses at Higher level; and

7.1.5 successfully complete the prescribed programme of studies.

7.2 For the degree of **Bachelor of Science with Honours in Computer Engineering**, the University has prescribed that a student must:

7.2.1 successfully complete 20 credits from courses labelled F in Table 1, by selecting 10 credits from MATH S121 and MATH S122, and 10 credits from IT S123 and IT S101; and

7.2.2 successfully complete 70 credits from the compulsory courses labelled CH in Table 1; and

7.2.3 obtain at least 30 credits from specialized computer engineering courses labelled HD in Table 1; and

7.2.4 obtain at least 10 credits from optional courses labelled MH in Table 1; and

7.2.5 obtain at least 10 credits from optional courses labelled NH in Table 1; and

7.2.6 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.

8. Bachelor of Science with Honours in Computer Engineering (through Pathway 1) (BSCHCE1)

8.1 To be eligible for the award of the degree of **Bachelor of Science with Honours in Computer Engineering**, a student who entered the programme through Pathway 1 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 80 credits in courses prescribed by the regulations as appropriate to the degree.

8.2 For the degree of **Bachelor of Science with Honours in Computer Engineering**, the University has prescribed that a student who entered the programme through Pathway 1 must:

8.2.1 complete ELEC S404; and

8.2.2 successfully complete 20 credits from courses labelled CH in Table 1; and

8.2.3 successfully complete 30 credits from courses labelled HD in Table 1; and

8.2.4 obtain an additional 10 credits from courses labelled CH, MH or NH in Table 1.

9. Bachelor of Science with Honours in Computer Engineering (through Pathway 2) (BSCHCE2)

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

9.1.1 comply with the Regulations for Admission, Registration and Maintenance of Status; and

9.1.2 comply with the Regulations for the Award of Undergraduate Degrees; and

9.1.3 obtain at least 80 credits in courses prescribed by the regulations as appropriate to the degree.

9.2 For the degree of **Bachelor of Science with Honours in Computer Engineering**, the University has prescribed that a student who entered the programme through Pathway 2 must:

9.2.1 complete ELEC S404; and

9.2.2 successfully complete 20 credits from courses labelled CH in Table 1; and

9.2.3 successfully complete 30 credits from courses labelled HD in Table 1; and

9.2.4 obtain an additional 10 credits from courses labelled CH, MH or NH in Table 1.

10. Bachelor of Science with Honours in Computer Engineering (through Pathway 3) (BSCHCE3)

10.1 To be eligible for the award of the degree of **Bachelor of Science with Honours in Computer Engineering**, a student who entered the programme through Pathway 3 shall:

10.1.1 comply with the Regulations for Admission, Registration and Maintenance of Status; and

10.1.2 comply with the Regulations for the Award of Undergraduate Degrees; and

10.1.3 obtain at least 90 credits in courses prescribed by the regulations as appropriate to the degree.

10.2 For the degree of **Bachelor of Science with Honours in Computer Engineering**, the University has prescribed that a student who entered the programme through Pathway 3 must:

10.2.1 complete COMP S260 and ELEC S224; and

10.2.2 complete ELEC S404; and

10.2.3 successfully complete 30 credits from courses labelled HD in Table 1; and

10.2.4 successfully complete 10 credits from courses labelled MH in Table 1; and

10.2.5 successfully complete 10 credits from courses labelled NH in Table 1.

11. Each degree with Honours shall be conferred with a classification of First Class, Second Class (Upper Division), Second Class (Lower Division) and Third Class save that exceptionally a degree may be conferred without classification.

12. Subject to the requirements 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.

13. For the calculation of scores for classification purposes in the **Bachelor of Science with Honours in Computer Engineering**, the University has deemed that "Group (a)" shall consist of course ELEC S404 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 levels 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 4)

Course Code	Course Title	Credits	BSCCE	BSCHCE	Honours Classification Group
Foundation level					
MATH S121 [1,4]	A Foundation in Pure Mathematics	10	F	F	--
MATH S122 [1,4]	A Foundation in Applied Mathematics	10	F	F	--
IT S101	Introduction to Information and Communications Technology	10	F	F	--
IT S123	Introduction to Internet Services and Applications	10	F	F	--
Middle level					
COMP S258	Computer Programming and Problem Solving	10	CD	CH	b
COMP S260 [1]	Computer Architecture and Operating Systems	10	CD	CH	b

Course Code	Course Title	Credits	BSCCE	BSCHCE	Honours Classification Group
ELEC S222 [1,4]	Electronics Principles and Digital Design	10	CD	CH	b
ELEC S224 [1,4]	Computers and Processors	10	CD	CH	b
MATH S221 [1,4]	Mathematical Methods	10	CD	CH	b
ELEC S212	Network Programming and Design	10	OD	MH	b
ENGG S228	Engineers in Society	5	OD	MH	b
IT S234	Web Site Design	10	OD	MH	b
MGT B240	Principles and Practices of Management	5	OD	MH	b
Higher level					
TC S319 [1,4]	Quality Management for Science and Technology	5	OD	CH/MH	a or b
TC S409 [1,4]	Safety and Reliability for Science and Technology	5	OD	MH	a or b
ELEC S332 [1,4]	Computer Networks	10	HD	HD	a or b
ELEC S333	Computer and PC Design	10	HD	HD	a or b
ELEC S334	Signal Processing and Multimedia Technology	10	HD	HD	a or b
COMP S311 [1]	Advanced Java Programming and Mobile Application Development	10	--	NH	a or b
COMP S356 [1]	Software Engineering and Project Management	10	--	NH	a or b
ELEC S323 [1,4]	Information Theory and Digital Communications	10	--	NH	a or b
ELEC S404 [1,2]	Computer Engineering Project Course	20	--	CH	a [2]
ELEC S411F [1,2,3]	Electronic and Computer Engineering Project	10	--	CH	a
ENGG S328F [3]	Engineering Professional Practice	5	--	CH	a or b

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. Course ELEC S404 will be compulsorily included in "Group (a)" for Honours Classification purposes. If students have successfully completed COMP S356F and ELEC S411F, they are deemed to have satisfied the requirements for ELEC S404.

3. Courses presented in full-time face-to-face mode and they are not available for students in the distance learning mode.

4. 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 BSCCE/BSCHCE 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**	**BSCCE**	**BSCHCE**		
ELEC S202	Analogue and Digital Electronics	20	ELEC S222	Electronics Principles and Digital Design	10	CD	CH	b	2
ELEC S203	The Digital Computer	10	ELEC S224	Computers and Processors	10	CD	CH	b	--
ELEC S223	Microprocessor-based Computers	10	ELEC S224	Computers and Processors	10	CD	CH	b	--
ELEC S312	Networking and Switching Technology	10	ELEC S332	Computer Networks	10	HD	HD	a or b	--
ELEC S322	Digital Telecommunications	10	ELEC S323	Information Theory and Digital Communications	10	N/A	NH	a or b	--
ELEC S335	Digital Integrated Circuit and System Design	10	No replacement			HD	HD	a or b	--
ELEC S396	Artificial Intelligence for Technology	10	No replacement			N/A	NH	a or b	--
ENGG S238	Quality and Reliability	10	SCI S319/ TC S319	Quality Management for Science and Technology	5	OD	CH/MH	b	--
			SCI S409/ TC S409	Safety and Reliability for Science and Technology	5	OD	MH	b	--
MATH S101	Mathematics: A Foundation Course	20	MATH S111/ MATH S121	A Foundation in Pure Mathematics	10	F	F	N/A	3
			MATH S122/ MATH S122	A Foundation in Applied Mathematics	10	F	F	N/A	3
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	4
MATH S207	Mathematical Methods, Models and Modelling	20	MATH S221	Mathematical Methods	10	CD	CH	b	4

Phased out Courses			Replacement courses			Label		Honours Classification Group	Note
Course Code	**Course Title**	**Course credits**	**Course Code**	**Course Title**	**Course credits**	**BSCCE**	**BSCHCE**		
MGT B290	Organizational Behaviour	5	No replacement			OD	MH	b	--
MGT B345	Managing in Organizations	5	No replacement			OD	MH	a or b	--
MGT B346	Theories and Practices of Organizational Behaviour	5	No replacement			OD	MH	a or b	--
SCI S319	Quality Management for Science and Technology	5	TC S319	Quality Management for Science and Technology	5	OD	CH/MH	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	MH	a or b	1

Notes to Table 2:

1. Change of course code

2. Students who have successfully completed ELEC S202 are deemed to have completed ELEC S222. The remaining credits gained from ELEC S202 may be counted as 10-credit free electives towards the BSCCE/BSCHCE programme subject to the requirements of the programme requirement.

3. Students who have successfully completed MATH S101 are deemed to have completed MATH S121 or MATH S122. The remaining credits gained from MATH S101 may be counted as 10-credit free electives towards the BSCCE/BSCHCE programme subject to the requirements of the programme requirement.

4. Students who have successfully completed MATH S204 or MATH S207 are deemed to have completed MATH S221. The remaining credits gained from MATH S204 or MATH S207 may be counted as 10-credit free electives towards the BSCCE/BSCHCE programme subject to the requirements of the programme requirement.

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