

# Regulations for the degree of Bachelor of Science in Mathematical Studies and Bachelor of Science with Honours in Mathematical Studies

The programmes of **Bachelor of Science in Mathematical Studies** and **Bachelor of Science with Honours in Mathematical Studies** will be phased out from 2021 Autumn term. The University will continue to confer the award of the degree of **Bachelor of Science in Mathematical Studies** and **Bachelor of Science with Honours in Mathematical Studies** up to December 2026.

## 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 Mathematical Studies** programme through pathway 1 or the **Bachelor of Science with Honours in Mathematical Studies** through pathway 1, a student shall normally possess a recognized Associate Degree or Higher Diploma (or equivalent) major related to mathematical or statistical studies from a local tertiary institution recognized by the University.
- 2.2 To enter the **Bachelor of Science in Mathematical Studies** programme through pathway 2 or the **Bachelor of Science with Honours in Mathematical Studies** through pathway 2, a student shall normally possess a recognized Associate Degree or Higher Diploma (or equivalent) in a relevant area related to science or engineering from a local tertiary institution recognized by the University.

## 3. Bachelor of Science in Mathematical Studies (BSCMS) (See Note 12)

- 3.1 To be eligible for the award of the degree of **Bachelor of Science in Mathematical Studies**, 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 for which notice has been given, including at least 20 credits in courses at Higher level.
- 3.2 For the degree of **Bachelor of Science in Mathematical Studies**, the University has prescribed that a student must:
  - 3.2.1 successfully complete 20 credits from courses labelled FD in Table 1 (i.e. MATH S121 and MATH S122); and
  - 3.2.2 successfully complete 70 credits from courses labelled CD in Table 1, of which at least 20

credits must be gained at Higher level including MATH S333 and MATH S390; and

- 3.2.3 obtain at least 10 credits from the optional courses labelled OD in Table 1; and
- 3.2.4 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 credits are gained at Foundation level.

#### 4. Bachelor of Science in Mathematical Studies (through Pathway 1) (BSCMS1) (See Note 12)

- 4.1 To be eligible for the award of the degree of **Bachelor of Science in Mathematical Studies**, 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 for which notice has been given.
- 4.2 For the degree of **Bachelor of Science in Mathematical Studies**, the University has prescribed that a student who entered the programme through pathway 1 must:
  - 4.2.1 successfully complete 30 credits from courses labelled CD (excluding COMP S258) in Table 1, of which 20 credits must be at Higher level including MATH S333 and MATH S390; and
  - 4.2.2 obtain a further 10 credits from courses labelled CD or OD (excluding COMP S258 and COMP S263) in Table 1.

#### 5. Bachelor of Science in Mathematical Studies (through Pathway 2) (BSCMS2) (See Note 12)

- 5.1 To be eligible for the award of the degree of **Bachelor of Science in Mathematical Studies**, 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 60 credits in courses prescribed by the regulations as appropriate to the degree for which notice has been given.
- 5.2 For the degree of **Bachelor of Science in Mathematical Studies**, the University has prescribed that a student who entered the programme through pathway 2 must:
  - 5.2.1 successfully complete 50 credits from courses labelled CD (excluding COMP S258) in Table 1, of which 20 credits must be at Higher level including MATH S333 and MATH S390; and
  - 5.2.2 obtain a further 10 credits from courses labelled CD or OD (excluding COMP S258 and COMP S263) in Table 1.

#### 6. Bachelor of Science with Honours in Mathematical Studies (BSCHMS) (See Note 12)

- 6.1 To be eligible for the award of the degree of **Bachelor of Science with Honours in Mathematical Studies**, 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 Mathematical Studies**, the University has prescribed that a student must:
- 6.2.1 successfully complete 20 credits from courses labelled FD in Table 1 (i.e. MATH S121 and MATH S122); and
  - 6.2.2 successfully complete 70 credits from courses labelled CH in Table 1, of which at least 20 credits must be gained at Higher level including MATH S333 and MATH S390; and
  - 6.2.3 obtain 20 credits from courses labelled OH in Table 1; and
  - 6.2.4 obtain 30 credits from courses labelled OH1 in Table 1; and
  - 6.2.5 successfully complete additional courses, as necessary, from any Foundation, Middle or Higher level courses offered by the University, provided that, of the total 160 credits, no more than 40 credits are gained at Foundation level.

## 7. Bachelor of Science with Honours in Mathematical Studies (through Pathway 1) (BSCHMS1) (See Note 12)

- 7.1 To be eligible for the award of the degree of **Bachelor of Science with Honours in Mathematical Studies**, 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 for which notice has been given; and
  - 7.1.4 successfully complete the prescribed programme of studies.
- 7.2 For the degree of **Bachelor of Science with Honours in Mathematical Studies**, the University has prescribed that a student who entered the programme through pathway 1 must:
- 7.2.1 successfully complete 50 credits from courses labelled CH in Table 1, of which 20 credits must be at Higher level including MATH S333 and MATH S390; and
  - 7.2.2 obtain 20 credits from Higher level courses labelled OH in Table 1; and
  - 7.2.3 obtain 10 credits from courses labelled OH1 (excluding COMP S201) in Table 1.

## 8. Bachelor of Science with Honours in Mathematical Studies (through Pathway 2) (BSCHMS2) (See Note 12)

- 8.1 To be eligible for the award of the degree of **Bachelor of Science with Honours in Mathematical Studies**, 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 90 credits in courses prescribed by the regulations as appropriate to the degree for which notice has been given; and
- 8.1.4 successfully complete the prescribed programme of studies.
- 8.2 For the degree of **Bachelor of Science with Honours in Mathematical Studies**, the University has prescribed that a student who entered the programme through pathway 2 must:
- 8.2.1 successfully complete 50 credits from courses labelled CH in Table 1, of which 20 credits must be at Higher level including MATH S333 and MATH S390; and
- 8.2.2 obtain 20 credits from Higher level courses labelled OH in Table 1; and
- 8.2.3 obtain 20 credits from courses labelled OH1 (excluding COMP S201) in Table 1.
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 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.
11. For the calculation of scores for classification purposes in the degree of **Bachelor of Science with Honours in Mathematical Studies**, the University has deemed that "Group (a)" shall consist of the best 40 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**

Course Code	Course Title	Credits	BSCMS	BSCHMS	Honours Classification Group
<i>Foundation level</i>					
MATH S121 <sup>1,2</sup>	A Foundation in Pure Mathematics	10	FD	FD	--
MATH S122 <sup>1,3</sup>	A Foundation in Applied Mathematics	10	FD	FD	--
<i>Middle level</i>					
COMP S258	Computer Programming and Problem Solving	10	CD	CH	b
MATH S215 <sup>1,4</sup>	Linear Algebra	5	CD	CH	b

Course Code	Course Title	Credits	BSCMS	BSCHMS	Honours Classification Group
MATH S216 <sup>1,4</sup>	Mathematical Analysis	5	CD	CH	b
MATH S221 <sup>1,5</sup>	Mathematical Methods	10	CD	CH	b
MATH S222 <sup>1,5</sup>	Mathematical Models with Applications	10	CD	CH	b
MATH S280 <sup>1,6</sup>	Statistical Methods for Decision Analysis	10	CD	CH	b
COMP S263 <sup>1</sup>	Discrete Structures	10	OD	OH1	b
COMP S201 <sup>1</sup>	Computing Fundamentals with Java	10	--	OH1	b
MATH S249	Practical Modern Statistics	10	--	OH1	b
<i>Higher level</i>					
MATH S333 <sup>1,10</sup>	Advanced Mathematical Methods	5	CD	CH	a or b
MATH S390	Quantitative Models for Financial Risk	5	CD	CH	a or b
MATH S346 <sup>1,7</sup>	Linear Statistical Modelling	10	CD/OD	CH/OH	a or b
MATH S373 <sup>1,8</sup>	Optimization Methods for Decision Making	10	CD/OD	CH/OH	a or b
COMP S359 <sup>1</sup>	Relational Databases: Theory & Practice	10	--	OH	a or b
MATH S350 <sup>1,9</sup>	Applied Probability Models for Decision Making	10	OD	OH1	a or b
MATH S365 <sup>1,11</sup>	Graphs, Networks and Design	10	OD	OH/OH1	a or b
STAT S347	Mathematical Statistics	10	OD	OH/OH1	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. Successful completion of MATH S101/ MATH S111 is considered as completion of MATH S121.

3. Successful completion of MATH S101/ MATH S112 is considered as completion of MATH S122.
4. Successful completion of MATH S203/MATH S213 is considered as completion of MATH S215 and MATH S216. However, MATH S203 may only be counted as 10 credits towards the BSCMS and BSCHMS programme.
5. Successful completion of MATH S204/MATH S207 is considered as completion of MATH S221 and MATH S222.
6. Successful completion of MATH S245/MATH S246/MATH S248 is considered as completion of MATH S280.
7. Successful completion of MATH S345 is considered as completion of MATH S346.
8. Successful completion of MATH S371 is considered as completion of MATH S373.
9. Successful completion of MATH S343 is considered as completion of MATH S350.
10. Successful completion of MATH S322 is considered as completion of MATH S333. However, MATH S322 may only be counted as 5 credits towards the BSCMS and BSCHMS programme.
11. Successful completion of MATH S361 is considered as completion of MATH S365.

**March 2021**