

## Regulations for the degree of Bachelor of Science in Statistics and Decision Science and Bachelor of Science with Honours in Statistics and Decision Science

The programmes of Bachelor of Science in Statistics and Decision Science and Bachelor of Science with Honours in Statistics and Decision Science will be phased out from 2021 Autumn term. The University will continue to confer the award of the degree of Bachelor of Science in Statistics and Decision Science and Bachelor of Science with Honours in Statistics and Decision Science 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 Statistics and Decision Science** programme through pathway 1 or the **Bachelor of Science with Honours in Statistics and Decision Science** 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 Statistics and Decision Science** programme through pathway 2 or the **Bachelor of Science with Honours in Statistics and Decision Science** 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 Statistics and Decision Science (BSCSDS)

- 3.1 To be eligible for the award of the degree of **Bachelor of Science in Statistics and Decision Science**, 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 Statistics and Decision Science**, 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 65 credits from all compulsory courses labelled CD in Table 1; and
- 3.2.3 obtain at least 15 credits from 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 Statistics and Decision Science (through Pathway 1) (BSCSDS1)

- 4.1 To be eligible for the award of the degree of **Bachelor of Science in Statistics and Decision Science**, 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 Statistics and Decision Science**, 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 in Table 1, of which must be including MATH S346 and MATH S350; and
  - 4.2.2 obtain a further 10 credits from courses labelled CD or OD in Table 1.

#### 5. Bachelor of Science in Statistics and Decision Science (through Pathway 2) (BSCSDS2)

- 5.1 To be eligible for the award of the degree of **Bachelor of Science in Statistics and Decision Science**, 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.
- 5.2 For the degree of **Bachelor of Science in Statistics and Decision Science**, the University has prescribed that a student who entered the programme through pathway 2 must:
  - 5.2.1 successfully complete 40 credits from courses labelled CD in Table 1, of which must be including MATH S346 and MATH S350; and
  - 5.2.2 obtain a further 20 credits from courses labelled CD or OD in Table 1.

#### 6. Bachelor of Science with Honours in Statistics and Decision Science (BSCHSDS)

- 6.1 To be eligible for the award of the degree of **Bachelor of Science with Honours in Statistics and Decision Science**, 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 Statistics and Decision Science**, 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 65 credits from all compulsory courses labelled CH in Table 1; and
  - 6.2.3 obtain 25 credits from courses labelled OH1 in Table 1 of which at least 15 credits must be at Higher level; and
  - 6.2.4 obtain 30 credits from courses labelled OH2 in Table 1 of which at least 10 credits must be at Higher level; 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 Statistics and Decision Science (through Pathway 1) (BSCHSDS1)

- 7.1 To be eligible for the award of the degree of **Bachelor of Science with Honours in Statistics and Decision Science**, 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; and
  - 7.1.4 successfully complete the prescribed programme of studies.
- 7.2 For the degree of **Bachelor of Science with Honours in Statistics and Decision Science**, the University has prescribed that a student who entered the programme through pathway 1 must:
  - 7.2.1 successfully complete 40 credits from courses labelled CH in Table 1, of which must be including MATH S346 and MATH S350; and
  - 7.2.2 obtain 15 credits from Higher level courses labelled OH1 in Table 1; and
  - 7.2.3 obtain 10 credits from Higher level courses labelled OH2 in Table 1; and
  - 7.2.4 obtain a further 15 credits from courses labelled CH, OH1 or OH2 in Table 1.

## 8. Bachelor of Science with Honours in Statistics and Decision Science (through Pathway 2) (BSCHSDS2)

- 8.1 To be eligible for the award of the degree of **Bachelor of Science with Honours in Statistics and Decision Science**, 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; and
- 8.1.4 successfully complete the prescribed programme of studies.
- 8.2 For the degree of **Bachelor of Science with Honours in Statistics and Decision Science**, 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 must be including MATH S346 and MATH S350; and
- 8.2.2 obtain 15 credits from Higher level courses labelled OH1 in Table 1; and
- 8.2.3 obtain 10 credits from Higher level courses labelled OH2 in Table 1; and
- 8.2.4 obtain a further 15 credits from courses labelled CH, OH1 or OH2 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 Statistics and Decision Science**, 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:** Courses currently on offer (Phased out courses that can be counted towards the degree are listed in note 2)

Course Code	Course Title	Credits	BSCSDS	BSCHSDS	Honours Classification Group
<i>Foundation level</i>					
MATH S121 <sup>1,2</sup>	A Foundation in Pure Mathematics	10	FD	FD	--
MATH S122 <sup>1,2</sup>	A Foundation in Applied Mathematics	10	FD	FD	--
<i>Middle level</i>					
MATH S215 <sup>1,2</sup>	Linear Algebra	5	CD	CH	b
MATH S221 <sup>1,2</sup>	Mathematical Methods	10	CD	CH	b

Course Code	Course Title	Credits	BSCSDS	BSCHSDS	Honours Classification Group
MATH S249	Practical Modern Statistics	10	CD	CH	b
MATH S280 <sup>1,2</sup>	Statistical Methods for Decision Analysis	10	CD	CH	b
STAT S242 <sup>1,2</sup>	Statistics in Society	10	CD	CH	b
COMP S201 <sup>1</sup>	Computing Fundamentals with Java	10	OD	OH1	b
ACT B210 <sup>1,2</sup>	Introduction to Accounting	10	OD	OH2	b
ECON A231 <sup>1,2</sup>	Introduction to Microeconomics	5	OD	OH2	b
ECON A232 <sup>1,2</sup>	Introduction to Macroeconomics	5	OD	OH2	b
ENVR S237 <sup>1</sup>	Environmental Control and Public Health	10	OD	OH2	b
FIN B280 <sup>1</sup>	Introduction to Financial Management	5	OD	OH2	b
MATH S216 <sup>1,2</sup>	Mathematical Analysis	5	-	OH2	b
<i>Higher level</i>					
MATH S346 <sup>1,2</sup>	Linear Statistical Modelling	10	CD	CH	a or b
MATH S350 <sup>1,2</sup>	Applied Probability Models for Decision Making	10	CD	CH	a or b
MATH S365 <sup>1,2</sup>	Graphs, Networks and Design	10	OD	OH1	a or b
MATH S373 <sup>1,2</sup>	Optimization Methods for Decision Making	10	OD	OH1	a or b
MATH S390	Quantitative Models for Financial Risk	5	OD	OH1	a or b
SCI S330	Scientific Research Methods	5	OD	OH1	a or b
ECON A305 <sup>1</sup>	Money and Banking	10	OD	OH2	a or b

Course Code	Course Title	Credits	BSCSDS	BSCHSDS	Honours Classification Group
ECON A314 <sup>1</sup>	Econometrics and Forecasting	5	OD	OH2	a or b
ECON A316 <sup>1</sup>	International Finance	5	OD	OH2	a or b
ENVR S335 <sup>1</sup>	Environmental Control, Monitoring and Modelling	10	OD	OH2	a or b
FIN B386 <sup>1</sup>	Financial Decision Making	5	OD	OH2	a or b
MATH S333 <sup>1,2</sup>	Advanced Mathematical Methods	5	-	OH2	a or b
STAT S347	Mathematical Statistics	10	OD	OH1/OH2	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. 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 BSCSDS/BSCHSDS 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 SDS	BSCH SDS		
ACT B211	Introduction to Accounting I	5	ACT B210	Introduction to Accounting	10	OD	OH2	b	--
ACT B212	Introduction to Accounting II	5							--
ECON A230	Introduction to Economics	10	ECON A231	Introduction to Microeconomics	5	OD	OH2	b	--
			ECON A232	Introduction to Macroeconomics	5	OD	OH2	b	--
MATH S101	Mathematics: A Foundation Course	20	MATH S121	A Foundation in Pure Mathematics	10	FD	FD	N/A	--
			MATH S122	A Foundation in Applied Mathematics	10	FD	FD	N/A	--

Phased out Courses			Replacement courses			Label		Honours Classification Group	Note
Course Code	Course Title	Course credits	Course Code	Course Title	Course credits	BSC SDS	BSCH SDS		
MATH S111	A Foundation in Pure Mathematics	10	MATH S121	A Foundation in Pure Mathematics	10	FD	FD	N/A	4
MATH S112	A Foundation in Applied Mathematics	10	MATH S122	A Foundation in Applied Mathematics	10	FD	FD	N/A	4
MATH S203	Introduction to Pure Mathematics	20	MATH S215	Linear Algebra	5	CD	CH	b	1
			MATH S216	Mathematical Analysis	5	N/A	OH2	b	1
MATH S213	Linear Algebra and Analysis	10	MATH S215	Linear Algebra	5	CD	CH	b	1
			MATH S216	Mathematical Analysis	5	N/A	OH2	b	1
MATH S204	Mathematical Models and Methods	20	MATH S221	Mathematical Methods	10	CD	CH	b	2
			MATH S222	Mathematical Models with Applications	10	N/A	N/A	N/A	2
MATH S207	Mathematical Methods, Models and Modelling	20	MATH S221	Mathematical Methods	10	CD	CH	b	2
			MATH S222	Mathematical Models with Applications	10	N/A	N/A	N/A	2
MATH S242	Statistics in Society	10	STAT S242	Statistics in Society	10	CD	CH	b	4
MATH S245	Probability and Statistics	10	MATH S280	Statistical Methods for Decision Analysis	10	CD	CH	b	--
MATH S246	Elements of Statistics	10	MATH S280	Statistical Methods for Decision Analysis	10	CD	CH	b	--
MATH S248	Analysing Data	10	MATH S280	Statistical Methods for Decision Analysis	10	CD	CH	b	--
MATH S322	Mathematical Methods and Fluid Mechanics	10	MATH S333	Advanced Mathematical Methods	5	N/A	OH2	a or b	3
MATH S343	Applications of Probability	10	MATH S350	Applied Probability Models for Decision Making	10	CD	CH	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 SDS	BSCH SDS		
MATH S345	Statistical Methods	10	MATH S346	Linear Statistical Modelling	10	CD	CH	a or b	--
MATH S361	Graphs, Networks and Design	10	MATH S365	Graphs, Networks and Design	10	OD	OH1	a or b	--
MATH S371	Computational Mathematics	10	MATH S373	Optimization Methods for Decision Making	10	OD	OH1	a or b	--

Notes to Table 2:

1. Students who have successfully completed MATH S203/MATH S213 are deemed to have completed MATH S215 and MATH S216 subject to the requirements of the programme requirements, i.e. (i) MATH S203/MATH S213 may be counted as 5 credits of course labelled CD and 15-credit free electives towards the BSCSDS programme; (ii). MATH S203/MATH S213 may be counted as 5 credits of course labelled CD, 5 credits of course labelled OH2 and 10-credit free electives towards the BSCHSDS programme.
2. Students who have successfully completed MATH S204/MATH S207 are deemed to have completed MATH S221. MATH S222 may be counted as 10-credit free electives towards the BSCSDS/BSCHSDS programme subject to the requirements of the programme requirement.
3. Students who have successfully completed MATH S322 are deemed to have completed MATH S333 and 5-credit free electives towards the BSCHSDS programme subject to the requirements of the programme requirement.
4. Change of course code

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