

Curriculum Transformation: Phase 2

Drafting template: Undergraduate course structure



Full Course title(s)	BSc (Hons.) Computer Science and Mathematics
Duration of full-time course	3 years
State if coexistent M-level course	Yes
Approving body and date of approval	For completion after approval

Year 1		2023-24							
Weighting within course		[Part 1 Stage 1] 0% (see note 4)							
Part	Stage	Unit code (see note 5)	Normal period of study for this Mode	Unit title (see note 6)	Unit status	Credits	DEU status	Unit from outs ide dep artm ent	Other information (see note 8)
1	1		AY	Artificial Intelligence 1	C	10	N		
			S1	Programming 1	C	10	Y		
			S1	Core Mathematics A (ES/CS)	C	15	N	Y	Department of Mathematical Sciences
			S2	Programming 2	C	10	Y		
			S2	Core Mathematics B (ES/CS)	C	15	N	Y	Department of Mathematical Sciences

Year 2		2023-24							
Weighting within course		[Part 2 Stage 2] 32% (see note 4)							
Part	Stage	Unit code (see note 5)	Normal period of study for this Mode	Unit title (see note 6)	Unit status	Credits	DEU status	Unit from outs ide dep artm ent	Other information (see note 8)
2	2		AY	Software Engineering	C	10	N		
			AY	Algorithms and Complexity	C	10	N		
			AY	Machine Learning	C	10	N		
			S1	Statistics 2A	C	10	N	Y	Department of Mathematical Sciences
			S2	Statistics 2B	C	5	N	Y	Department of Mathematical Sciences
			S1	Probabilistic Modelling	O	5	N	Y	Department of Mathematical Sciences
				Algebra 2A	O	5	N	Y	Choose 1 unit
			S2	Probability Theory	O	10	N	Y	Department of Mathematical Sciences
				Numerical Analysis	O	10	N	Y	Choose 1 unit
				Algebra 2B	O	10	N	Y	

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Year 3				2023-24					
Weighting within course				[Part 3 Stage 3/4] 68% (see note 4)					
Part	Stage	Unit code (see note 5)	Normal period of study for this Mode	Unit title (see note 6)	Unit status	Credits	DEU status	Unit from outside department	Other information (see note 8)
3	3		AY	Individual Project	C	20	Y		Compulsory Project option. Select 1 option. Extended Project is DoS approved.
			AY	Extended Project	C	30	Y		
			S1	Differential Geometry of Curves and Surfaces	O	5	N	Y	Maths Options Some units are subject to prerequisites.
			S1	Numbers & Codes	O	5	N	Y	
			S1	Projective Geometry	O	5	N	Y	
			S1	Stochastic Processes & Martingales	O	10	N	Y	
			S1	Numerical Linear Algebra	O	10	N	Y	
			S1	Statistical Modelling & Data Analytics A	O	10	N	Y	
			S1	Bayesian Statistics	O	5	N	Y	
			S2	Groups and their Representations	O	10	N	Y	
			S2	Introduction to Topology	O	5	N	Y	
			S2	Statistical Modelling & Data Analytics B	O	10	N	Y	
			S2	Medical Statistics	O	5	N	Y	
			S2	Probability & Finance	O	5	N	Y	
			S2	Discrete Probability	O	5	N	Y	
			S2	Complex Analysis	O	5	N	Y	
			S2	Graph Theory	O	5	N	Y	
			S2	Inverse Problems and Numerical Optimisation	O	10	N	Y	
			AY	Reinforcement Learning	O	10	N		CS and GAU Options
			S1	Computer Algebra	O	5	N		
			S1	Computational Complexity	O	5	N		Take any combination of 40 credits from the Maths Options and CS and GAU Options Lists (30 Credits if Extended Project is selected) with equal semesters. A minimum of 20 credits needs to be selected from the list of Maths Options.
		MN20074	S1	Digital Business Innovation	O	5	N	Y	
			S2	Logic and Semantics	O	5	N		
			S2	Parallel Computing	O	5	N		
			S2	Compilers	O	5	N		
			S2	Cybersecurity	O	5	N		
			S2	Entrepreneurship	O	10	N		
		MN30076	S2	Business Strategy	O	5	N	Y	

Commented [JB1]: What are the implications for AND degrees and these GAU units?

Notes for completion

1. A separate course structure table is required for each variant of the course, including ordinary 'thick sandwich' variants (i.e. those with an additional non-mandatory course year for work or study placement, where the units taken in other course years are identical), or where external activity replaces study at Bath.
2. As applicable, differentiated course structure tables should be used to show your transitional plans for delivering courses with placement or study abroad variants, where students on a sandwich year who

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start in 2022/23 (on the existing course) will reach their final year at the same time as students who start in 2023/24 (on the transformed course) and do not take a sandwich year.

3. Credit values must be given in ECTS.
4. The 'weighting within course' is included in the digital prospectus. It should be the same weighting as applies on the current course. If a change to the current weighting is proposed, this will require specific approval.
5. The unit code column is for completion after approval.
6. Ensure that the unit title stated here matches that appearing on the relevant unit summary template (QA-CT: Phase 2, Annex 7). If your unit title may not uniquely identify the individual unit (e.g. 'Research Methods', 'Project', 'Dissertation', 'Placement', etc) then please state additional identifiers here **in brackets** to enable the information provided in this document to be matched to the correct unit information e.g. 'Final year project (MEng Civil Engineering courses)'. The text in brackets is not part of the official unit title.
7. There must be no progression requirements within an undergraduate course year. Please refer to provisions of the 2021 [academic framework](#) for all design parameters.
8. The 'Other Information' column should be used to specify:
 - a. how option choice works (e.g. 'Choose 1 optional unit from List A...');
 - b. any units that are cross-departmental units (currently 'XX-' units)
 - c. any units that are Director of Studies Approved units (currently 'ZZ-' units). Director of Studies Approved units may be used as an optional unit, but must only be agreed, for a student, after the timetable has been finalised.
 - d. any units that are semester-long placement or study abroad units.

HoD endorsement

HoD endorsement

Where units are delivered by another department, as identified in the course structure tables above, confirmation that this is endorsed by the **delivering** HoD and Faculty.
Please confirm for all applicable departments.