

This Course Information Form provides the definitive record of the designated course

General Course Information

Course Title	Computing and Mathematics Computing and Mathematics (with Professional Practice Year)
Qualification	BSc (Hons)
FHEQ Level	6
Intermediate Qualification(s)	None
Awarding Institution	University of Bedfordshire
Location of Delivery	AA – University Square Campus
Mode(s) of Study and Duration	Full-time over 3 years Full-time with Professional Practice Year over 4 years Part-time pathway typically over 6 years
Professional, Statutory or Regulatory Body (PSRB) accreditation or endorsement	None
UCAS Course Code	G4G1
External Benchmarking	QAA Subject Benchmark Statement Computing (2016) QAA FHEQ level descriptors (2014)
Entry Month(s)	October and February

Why study this course

This course brings together the fields of Computer Science and Mathematics. As such it provides a unique opportunity to explore and learn about subjects that are on the boundaries of both; it offers you the opportunity to combine mathematical skills with problems requiring the use of computers and will prepare students for careers that require high numerical and analytical skills.

- Learn the key elements such as logic and algebra that feed into more applied areas of study, including computational maths and security
- Study topics relating to operations research, such as simulation and statistics
- Develop your knowledge of complementary topics in computer science, such as object-orientation and artificial intelligence

- Gain confidence as you study under the guidance of tutors who combine academic knowledge with real-world experience
- Explore the core concepts of computer science and support your theoretical work with practical exercises
- Challenge current thinking as you develop your own solutions to the many issues that face computer security
- Benefit from an integrated approach to your studies

Educational Aims

You'll focus on key elements of mathematics - such as logic and algebra that feed into more applied areas of study, including computational maths and security.

As the course progresses, you'll cover topics in operations research, such as simulation and statistics. These are studied in the context of complementary topics in computer science, such as object-orientation (OO) or artificial intelligence (AI).

This course has an integrated approach to maths and computer science, covering core concepts in computer science, and supporting 'theoretical' maths with practical work.

Course Structure

The Units which make up the course (including the Professional Practice Year as applicable) are:

Unit Code	Level	Credits	Unit Name	Core or option
CIS020-1	4	30	Introduction to Software Development	Core
CIS034-1	4	30	Engineering Mathematics	Core
CIS017-1	4	30	Computer Systems Structure	Core
CIS082-1	4	30	Mathematics of Data	Core
CIS016-2	5	30	Object Oriented Programming and Software Engineering	Core
CIS007-2	5	30	Decision Support Systems and Data Mining	Core
CIS006-2	5	30	Concepts and Technologies of Artificial Intelligence	Core
CIS086-2	5	30	Algebra, Combinatorics and Logic	Core
CIS097-2	n/a	0	Professional Practice Year (Computer Science and Technology)	Option
CIS013-3	6	30	Research Methodologies and Emerging Technologies	Core
CIS007-3	6	30	Comparative Integrated Systems	Core
CIS015-3	6	30	Social and Professional Project Management	Core
CIS017-3	6	30	Undergraduate Project	Core

Course-Specific Regulations

For the calculation of honours awards the two units CIS013-3 Research Methodologies and Emerging Technologies (Semester 1) and CIS017-3 Undergraduate Project (Semester 2) are classified as the project.

Entry requirements

University of Bedfordshire standard entry requirements apply.

Additional Course costs

None

Graduate Impact Statements

The course has been designed to develop graduates who are able to:

- Exhibit an advanced understanding of methods, concepts and technologies within the core area of Computer Science and Mathematics including Algebra, Logic, Decision Support Systems and Artificial Intelligence.
- Contribute specialist expertise productively to a multi-specialist development team working from software design to implementation and deployment.
- Learn and use new ideas and techniques as they appear within an evolving industry while still rooted in the fundamental principles of mathematical thinking.

Course Learning Outcomes

- LO1: Analyse complex data and to draw conclusions by synthesising data within the fields of computer science and mathematics
- LO2: Solve complex computational/mathematical problems by using lateral and logical thinking
- LO3: Analyse, evaluate and synthesise information from a variety of sources and to be able to develop a justified conclusion
- LO4: Present coherent arguments in both written and oral forms to appropriate academic or professional standards
- LO5: Identify and apply appropriate methods for a given problem at the boundary of computer science and mathematics.
- LO6: Evaluate when and why you need information; find, use and communicate it in an ethical manner
- LO7: A comprehensive understanding of the legal, social and ethical issues affecting the fields of computer science and mathematics
- LO8: Apply formal and informal creativity and critical thinking techniques in the solution of problems.

In order to qualify for the award of BSc (Hons) Computing and Mathematics (with Professional Practice year) students will need to meet all of the outcomes above and:

- LO9: Demonstrate knowledge and analytical understanding of professional practice by successfully completing an approved period of approved work place practice.

PSRB details

None

Learning and Teaching

The course structure across levels is implemented as follows:

The first year will cover the fundamentals of the broader subject area (Computer Science) by encompassing the topics of Mathematics, Modelling, Software Engineering, Databases, Networking and Hardware. In addition the professional development of the students is fostered within Term 1 of the unit CIS018-1 Fundamentals of Computing.

The second year is comprised of four specialist units that deepen the knowledge, understanding and application of the first year. While there is no direct prerequisite, there is a clear logic in structure from the first year to the second year:

- CIS016-2 Object Oriented Programming and Software Engineering follows the foundations provided in CIS020-1 Introduction of Software Engineering.
- CIS006-2 Decision Support Systems and Data Mining builds on the knowledge about databases as identified in CIS017-1 Computer Systems Structure.
- CIS006-2 Concepts and Technologies of Artificial Intelligence specializes on ideas and algorithms furthering the applied aspects of CIS034-1 Engineering Mathematics
- CIS086-2 Algebra, Combinatorics and Logic adds areas from 'pure Mathematics' to the mix of subject: it logically follows the mathematical concepts from CIS034-1 Engineering Mathematics

The final year – as with any honours degree – devotes 60 credits to the honours project as part of the two units CIS013-3 Research Methodologies and Emerging Technologies and CIS017-3 Undergraduate Project. While the undergraduate project relates to the student working as an individual the unit CIS015-3 Social and Professional Project Management addresses student interaction within a professional environment. The students have to work in a group and make decisions within professionally arranged project meetings.

In addition, the unit CIS007-3 Comparative Integrated Systems provides a capstone to the subject focussed experience from the second year by critically questioning the role of programming languages, software architectures, interfaces and distributed systems.

Assessment

You are assessed in a variety of ways. The majority of units are assessed through coursework, group and individual projects, portfolios, essays, presentations or exams. You will also produce software artefacts in the area of your specialism. Constant feedback and advice from a supervisory or unit team will be provided to support you in your work.

At level 4 you are assessed on your understanding of the fundamental concepts of Computer Science and its application and basic principles in Mathematics. You are required to comprehend the basic range of intellectual concepts which form the foundations of the subject and application area, and will be assessed on your ability to articulate such concepts in a coherent manner, in a variety of written assessments/written briefs. For example, there will be time constraint programming assignments, mathematical tests as well as multiple choice tests.

At level 5 you are assessed on your ability to apply the basic concepts of the disciplines introduced in level 4 to existing controversies and issues on which there is already a body of research and critical opinion. You also should be able to demonstrate the inter-relationships between critical theory and practice. For example, the units 'Concepts of AI' and 'Object Oriented Programming and Software Engineering' will further your understanding of software paradigms. Also new concepts (such as Algebra and Combinatorics) are introduced.

At level 6 you will be required to demonstrate independent thinking and initiative. This may be in the form of analysing and criticising current approaches and theory. In all cases, you will be expected to show an awareness of the major theories and practices of the discipline. You will progress from well-defined briefs to more open-ended and challenging assessments, which culminate in the honours project – where you will be given freedom to choose your area of work.

Assessment Map – BSc (Hons) Computing and Mathematics

FB1 – Feedback Assessment 1; FB2 – Feedback Assessment 2

Unit Code	C/O	Semester 1												Semester 2													
		4	5	6	7	8	9	10	11	12	13	14	15	18	4	5	6	7	8	9	10	11	12	13	14	15	18
CIS082-1	C			CW-Port				FB1					CW-Port	FB2													
CIS020-1	C			Ex-CB	FB1								WR-GR	FB2													
CIS034-1	C																			Wr-Gr				FB1		Ex	FB2
CIS017-1	C																Pr-Lab				FB1				Ex-CB	FB2	
CIS016-2	C				WR-I				FB1				Ex	FB2													
CIS086-2	C							CW-ePort				FB1	Ex	FB2													
CIS006-2	C																WR-I				FB1				WR-I	FB2	
CIS007-2	C																	WR-I				FB1			WR-I	FB2	
CIS097-2	O	Three weeks after completion of work experience; feedback within 20 working days.																									
CIS013-3	C			CW-RW		FB1							WR-I	FB2													
CIS007-3	C									PJ-Art			Ex & FB1	FB2													
CIS015-3	C																				PJ-Oral			FB1		PJ-Art	FB2
CIS017-3	C																		WR-I			FB1			PJ-Proj	FB2	

Developing your employability

Employability is understood widely as encompassing knowledge, skills and a professional attitude which your tutors expect you to display in all your units. All University of Bedfordshire courses aim to help you to be prepared for the world of work. The Careers Service is there to support you throughout the three years of your study. Our curriculum gives you skills that are valuable for a career within Computer Science but it is also relevant for a much wider range of applications.

The final year unit 'Social and Professional Project Management' in particular requires you to work in a team so as to apply a current project management methodology that embraces all of these knowledge areas in an integrated way while going through the stages of planning, execution and project control; you will work as part of a team, take responsibility and make autonomous decisions that impact on the project team performance.

In addition and somewhat complementary the honours project fosters independent and autonomous study: you learn to take up the responsibility of conducting your project, typically derived from your own ideas, in collaboration with a dedicated member of the teaching staff as project supervisor.

Students who register for the degree with professional practice year will additionally attend a series of workshops and activities related to securing a suitable placement and compulsory briefings at the end of year 2 to ensure that all legal requirements for health and safety, safeguarding etc. training have been met,. This will be explained more fully in your professional practice handbook once you have registered with the Careers and Employability Service's Student Development and Awards Team in your first year. If you will be working with children and/or vulnerable people you will be required to have a DBS check and undertake Safeguarding and Prevent training.

After Graduation

Career:

Modelling and simulation, analyst, security theoretician, operational research and applied statistician.

Further study:

MSc Computer Science or Mathematics; MPhil / Ph.D.

Additional Information

All units benefit from weekly practical sessions or supervisor meetings that provide a constant learner-teacher interaction process which also serves to reflect on learning styles.

The honours project includes a 'contextual report' (Assignment 1 of CIS013-3) which is formative in nature and provides an opportunity of structured feedback on the approach taken by the students for their honours project.

Student Support during the course

At institutional level, the university has in place a range of easily accessible support structures for new and existing students.

The Student Information Desk (SiD, <http://beds.ac.uk/sid>) offers confidential advice on all aspects of academic study. It provides information about other areas of university-wide student support such as extenuating circumstances, housing, health, counselling, study support, special needs and disability advice, and careers service. The Study Hub provides workshops and one to one support for academic skills.

The university chaplaincy runs regular meetings, social events and trips. The Student Union provides additional support and activities.

Course specific support is also in place. First year students receive a comprehensive induction in the week prior to the commencement of the academic year. In addition to this, course co-ordinators will meet with their student groups to explain the course structure and other issues relating to the student experience. These introductions will give you outlines of your course and units, a description of the ways you will be encouraged to develop your knowledge and skills, and signpost resources and materials to assist the process of your learning and success. An important part of this induction is the training to use BREO (Bedfordshire Resources for Education Online). BREO is your personalized virtual learning environment that contains lecture notes, links for online assignment submissions, staff contact details, links to central student services and much more. We expect that you use BREO regularly, and that you use your university email where we send you updates about all aspects of your course which need your attention.

All students will be allocated a personal tutor when they join the course. This academic will be responsible of monitoring your academic progress throughout your first year and beyond, and will help you with any academic or personal issues that might come up. The personal tutor is your consistent point of contact for support and guidance, but will on occasion refer you to other university staff for specific issues.

Further support is provided by lecturers who have office hours and by the course administration team.

Students may be required, at the discretion of the course coordinator, to undergo diagnostic testing for academic English language abilities, and may further be required, at the course coordinator's discretion, to participate in academic English support workshops or classes laid on by the University.

Our PAL (Peer Assisted Learning) scheme will provide additional support to new students from students at levels 5 and 6.

Course Equality Impact Assessment

Question	Y/N	Anticipatory adjustments/actions
Is the promotion of the course open and inclusive in terms of language, images and location?	Y	
Are there any aspects of the curriculum that might present difficulties for disabled students? For example, skills and practical tests, use of equipment, use of e-learning, placements, field trips etc.	Y	This course makes intensive use of computing equipment (desktop or laptop computers) and so if you have difficulty accessing these you should discuss this with the Disability Advice Team in conjunction with the course team at the outset to ensure that appropriate support is

		in place.
Are there any elements of the content of the course that might have an adverse impact on any of the other groups with protected characteristics ¹ ?	N	
If the admission process involves interviews, performances or portfolios how have you demonstrated fairness and avoid practices that could lead to unlawful discrimination?	n/a	No interviews are part of the admission process.
Have you framed the course learning outcomes and Graduate Impact Statements in a non-discriminatory way?	Y	
Does the course handbook make appropriate reference to the support of disabled students?	Y	

¹ Age, Gender reassignment, Marriage and civil partnership, Pregnancy and maternity, Race, Religion and belief, Sex, Sexual orientation

Administrative Information – Faculty completion	
Faculty	Creative Arts, Technologies and Science
Portfolio	Undergraduate Computing and Engineering
Department/School	Computer Science and Technology
Course Coordinator	Marc Conrad
Semester pattern of operation	Semester 1 and Semester 2
PSRB renewal date (where recognised)	n/a
Version number	1/18
Approved by (c.f. Quality Handbook ch.2)	University Approval (Periodic Review, Stage 2)
Date of approval (dd/mm/yyyy)	20/04/2018
Implementation start-date of this version (plus any identified end-date)	10/2018
Study model type if not on-campus	On-campus

	Name	Date
Form completed by	Marc Conrad	04/02/2018
Signature of Chair of Faculty TQSC		

Course Updates – ensure that the revised CIF is given a new version number each time a change is made		
Date	Nature of Update	FTQSC Minute Ref:

Administrative Information – Academic Registry completion	
Route code (post approval)	
JACS / HECoS code (KIS)	
SLC code (post approval)	
Qualification aim (based on HESA coding framework)	



Annexes to the Course Information Form

*These annexes will be used as part of the approval and review process and **peer academics** are the target audience.*

General course information

Course Title	Computing and Mathematics Computing and Mathematics (with Professional Practice Year)
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Qualification	BSc (Hons)
Route Code (SITS)	
Faculty	CATS
Department/School/Division	Computer Science and Technology
Version Number	2016/2

Annex A: Course mapping of unit learning outcomes to course learning outcomes

Unit code	CIS020-1	CIS034-1	CIS017-1	CIS082-1	CIS016-2	CIS007-2	CIS086-2	CIS006-2	CIS007-3	CIS013-3	CIS017-3	CIS015-3	CIS097-2				
Level	4	4	4	4	5	5	5	5	6	6	6	6	5				
Credits	30	30	30	30	30	30	30	30	30	30	30	30	0				
Core or option	C	C	C	C	C	C	C	C	C	C	C	C	O				
Course Learning Outcome (number)	<i>Insert LO1 and/or LO2 for each unit into cell corresponding to the course learning outcome</i>																
1			1,2				1,2	1,2	1,2	1,2	1,2	1,2					
2	1,2	1,2			1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2					
3		1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2					
4			1,2	1,2			1,2		1,2	1,2	1,2						
5	1,2	1,2		1,2	1,2		1,2		1,2	1,2	1,2	1,2					
6	1,2						1,2	1,2	1,2	1,2	1,2						
7	1,2	1,2			1,2					1,2	2	1,2					
8			1,2	1,2		1,2	1,2		1,2	1,2	1,2	1,2					
9													1,2				

Annex B: Named exit or target intermediate qualifications

This annex should be used when Schools wish to offer intermediate qualifications which sit under the main course qualification as named exit or target awards, rather than unnamed exit/default awards.

Section 1: General course information

Intermediate Qualification(s) and titles	<i>Not applicable</i>
Mode(s) of Study and Duration	
Type of Intermediate Qualification(s)	
Route Code(s) (SITS) of Intermediate Qualification(s)	

Section 2: Qualification unit diet

One table to be used for each intermediate qualification

Confirmation of unit diet for:	<i>Not applicable</i>	
The units to achieve the credits required may be taken from any on the overall diet for the main course qualification		<input type="checkbox"/>
A combination of units from a restricted list must be taken to achieve the credits required (specify the list below)		<input type="checkbox"/>
A specific set of units must be taken to achieve the credits required (specify units below)		<input type="checkbox"/>

List of units (if applicable):-

Section 3: Course structure and learning outcomes

One table to be used for each intermediate qualification

Intermediate qualification and title					Not applicable									
The Units which make up this course are:					Contributing towards the learning outcomes <i>Insert LO1 and/or LO2 for each unit into cell corresponding to the course learning outcome</i>									
Unit Code	Level	Credits	Unit Name	Core or option	1	2	3	4	5	6	7	8	9	10

Annex C: Course mapping to FHEQ level descriptor, subject benchmark(s) and professional body or other external reference points

One set of mapping tables to be produced for the course and each named intermediate qualification

Course (or intermediate) qualification and title	BSc (Hons) Computing and Mathematics
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FHEQ Descriptor for a higher education qualification	QAA FHEQ level descriptors; October 2014	Course Learning Outcome(s)								
		1	2	3	4	5	6	7	8	9
A systematic understanding of key aspects of their field of study, including acquisition of coherent and detailed knowledge, at least some of which is at, or informed by, the forefront of defined aspects of a discipline.		X								
An ability to deploy accurately established techniques of analysis and enquiry within a discipline			X			X				
Conceptual understanding that enables the student: <ul style="list-style-type: none"> - to devise and sustain arguments, and/or to solve problems, using ideas and techniques, some of which are at the forefront of a discipline - to describe and comment upon particular aspects of current research, or equivalent advanced scholarship, in the discipline 								X		
An appreciation of the uncertainty, ambiguity and limits of knowledge								X		
The ability to manage their own learning, and to make use of scholarly reviews and primary sources (for example, refereed research articles and/or original materials appropriate to the discipline).									X	
Typically, holders of the qualification will be able to apply the methods and techniques that they have learned to review, consolidate, extend and apply their knowledge and understanding, and to initiate and carry out projects						X				
Typically, holders of the qualification will be able to critically evaluate arguments, assumptions, abstract concepts and data (that may be incomplete), to make judgements, and to frame appropriate questions to achieve a solution - or identify a range of solutions - to a problem									X	
Typically, holders of the qualification will be able to communicate information, ideas, problems and solutions to both specialist and non-specialist audiences.				X			X			
And holders will have the qualities and transferable skills necessary for employment requiring the exercise of initiative and personal responsibility; decision-making in complex and unpredictable contexts; the learning ability needed to undertake appropriate further training of a professional or equivalent nature.			X							

Subject Benchmark Statement(s)	<i>Subject Benchmark Statement Computing, February 2016</i>	Evidence and/or Course Learning Outcome(s) <i>How the course takes account of relevant subject benchmark statements</i>
i) demonstrate a requisite understanding of the main body of knowledge for their programme of study		LO1, LO4
ii) understand and apply essential concepts, principles and practices of the subject in the context of well-defined scenarios, showing judgement in the selection and application of tools and techniques		LO2
iii) produce work involving problem identification, the analysis, design and development of a system with accompanying documentation, recognising the important relationships between these stages and showing problem solving and evaluation skills drawing on supporting evidence		LO5
iv) produce small well-constructed programmes to solve well-specified problems		LO8
v) Demonstrate generic skills, an ability to work under guidance and as a team member.		LO3, LO4, LO6, LO8
vi) identify appropriate practices within a professional, legal and ethical framework and understand the need for continuing professional development.		LO7

The format of the following mapping tables may be adjusted.

Qualification Characteristic	<i>Not applicable</i>	Evidence <i>How the course takes account of relevant qualification characteristics documents</i>

Professional body or other external reference points	<i>Not applicable</i>	Evidence <i>How the course takes account of Professional body or other external reference points</i>

Annex D: Diet Template

Course Title:	BSc (Hons) Computing and Mathematics		
Route Code:	BSCMS-S	Mode: e.g. Full Time	
Length of course:	3 years / 4 years with PPY	Full-Time & Part-Time	

Location of delivery (please tick):

Luton AA	XXX
Bedford AB	
Milton Keynes AD	
Other (please state)	

Delivery pattern - please highlight all applicable start months, if other please state):

<u>Semesterised</u>	OCT	FEB	JUN	Exception.....			
<u>PG Block delivery (intake months ONLY)</u>	BLK1 OCT	BLK2 NOV	BLK3 FEB	BLK4 APR	BLK5 JUN	BLK6 AUG	
<u>Yearlong delivery</u>	OCT (TY)	FEB (FY)					
<u>Other (outside of agreed patterns)²</u>							

² Where you are proposing a teaching pattern outside of the University agreed patterns, you should provide a mapping document for the course against the University standard patterns of assessment points, exam boards, terms dates and breaks

**October Start:
Units for Year 1**

Unit Code	Unit Name	Unit Location	Core/Option*	Period of study	Credits
CIS020-1	Introduction to Software Development	AA	Core	Oct-Jan	30
CIS082-1	Mathematics of Data	AA	Core	Oct-Jan	30
CIS016-1	Principles of Programming	AA	Core	Feb-Jun	30
CIS034-1	Engineering Mathematics	AA	Core	Feb-Jun	30

Units for Year 2

Unit Code	Unit Name	Unit Location	Core/Option*	Period of study	Credits
CIS016-2	Object Oriented Programming and Software Engineering	AA	Core	Oct-Jan	30
CIS086-2	Algebra, Combinatorics and Logic	AA	Core	Oct-Jan	30
CIS006-2	Concepts and Technologies of Artificial Intelligence	AA	Core	Feb-Jun	30
CIS007-2	Decision Support Systems and Data Mining	AA	Core	Feb-Jun	30

Units for Year 3 - Professional Practice Year (if applicable)

Unit Code	Unit Name	Unit Location	Core/Option*	Period of study	Credits
CIS097-2	Professional Practice Year (Computer Science and Technology)	Off Campus	Option	Oct-Jun	0

Units for Year 4 (with Professional Practice Year) or Year 3 (without Professional Practice Year)

Unit Code	Unit Name	Unit Location	Core/Option*	Period of study	Credits
CIS007-3	Comparative Integrated Systems	AA	Core	Oct-Jan	30
CIS013-3	Research Methodologies and Emerging Technologies	AA	Core	Oct-Jan	30
CIS015-3	Social and Professional Project Management	AA	Core	Feb-Jun	30
CIS017-3	Undergraduate Project	AA	Core	Feb-Jun	30

**February Start:
Units for Year 1**

Unit Code	Unit Name	Unit Location	Core/ Option*	Period of study	Credits
CIS020-1	Introduction to Software Development	AA	Core	Oct-Jan	30
CIS082-1	Mathematics of Data	AA	Core	Oct-Jan	30
CIS016-1	Principles of Programming	AA	Core	Feb-Jun	30
CIS034-1	Engineering Mathematics	AA	Core	Feb-Jun	30

Units for Year 2

Unit Code	Unit Name	Unit Location	Core/ Option*	Period of study	Credits
CIS016-2	Object Oriented Programming and Software Engineering	AA	Core	Oct-Jan	30
CIS086-2	Algebra, Combinatorics and Logic	AA	Core	Oct-Jan	30
CIS006-2	Concepts and Technologies of Artificial Intelligence	AA	Core	Feb-Jun	30
CIS007-2	Decision Support Systems and Data Mining	AA	Core	Feb-Jun	30

Units for Year 3 - Professional Practice Year (if applicable)

Unit Code	Unit Name	Unit Location	Core/ Option*	Period of study	Credits
CIS097-2	Professional Practice Year (Computer Science and Technology)	Off Campus	Option	Feb-Jan	0

Units for Year 4 (with Professional Practice Year) or Year 3 (without Professional Practice Year)

Unit Code	Unit Name	Unit Location	Core/ Option*	Period of study	Credits
CIS007-3	Comparative Integrated Systems	AA	Core	Oct-Jan	30
CIS013-3	Research Methodologies and Emerging Technologies	AA	Core	Feb-Jun	30
CIS015-3	Social and Professional Project Management	AA	Core	Feb-Jun	30
CIS017-3	Undergraduate Project	AA	Core	Oct-Jan	30

Part-Time (October Start)**Units for Year 1**

Unit Code	Unit Name	Unit Location	Core/Option*	Period of study	Credits
CIS082-1	Mathematics of Data	AA	Core	Oct-Jan	30
CIS034-1	Engineering Mathematics	AA	Core	Feb-Jun	30

Units for Year 2

Unit Code	Unit Name	Unit Location	Core/Option*	Period of study	Credits
CIS020-1	Introduction to Software Development	AA	Core	Oct-Jan	30
CIS016-1	Principles of Programming	AA	Core	Feb-Jun	30

Units for Year 3

Unit Code	Unit Name	Unit Location	Core/Option*	Period of study	Credits
CIS016-2	Object Oriented Programming and Software Engineering	AA	Core	Oct-Jan	30
CIS006-2	Concepts and Technologies of Artificial Intelligence	AA	Core	Feb-Jun	30

Units for Year 4

Unit Code	Unit Name	Unit Location	Core/Option*	Period of study	Credits
CIS086-2	Algebra, Combinatorics and Logic	AA	Core	Oct-Jan	30
CIS007-2	Decision Support Systems and Data Mining	AA	Core	Feb-Jun	30

Units for Year 5

Unit Code	Unit Name	Unit Location	Core/Option*	Period of study	Credits
CIS007-3	Comparative Integrated Systems	AA	Core	Oct-Jan	30
CIS015-3	Social and Professional Project Management	AA	Core	Feb-Jun	30

Units for Year 6

Unit Code	Unit Name	Unit Location	Core/Option*	Period of study	Credits
CIS013-3	Research Methodologies and Emerging Technologies	AA	Core	Oct-Jan	30
CIS017-3	Undergraduate Project	AA	Core	Feb-Jun	30

Part-Time (February Start)**Units for Year 1**

Unit Code	Unit Name	Unit Location	Core/Option*	Period of study	Credits
CIS082-1	Mathematics of Data	AA	Core	Oct-Jan	30
CIS034-1	Engineering Mathematics	AA	Core	Feb-Jun	30

Units for Year 2

Unit Code	Unit Name	Unit Location	Core/Option*	Period of study	Credits
CIS020-1	Introduction to Software Development	AA	Core	Oct-Jan	30
CIS016-1	Principles of Programming	AA	Core	Feb-Jun	30

Units for Year 3

Unit Code	Unit Name	Unit Location	Core/Option*	Period of study	Credits
CIS016-2	Object Oriented Programming and Software Engineering	AA	Core	Oct-Jan	30
CIS006-2	Concepts and Technologies of Artificial Intelligence	AA	Core	Feb-Jun	30

Units for Year 4

Unit Code	Unit Name	Unit Location	Core/Option*	Period of study	Credits
CIS086-2	Algebra, Combinatorics and Logic	AA	Core	Oct-Jan	30
CIS007-2	Decision Support Systems and Data Mining	AA	Core	Feb-Jun	30

Units for Year 5

Unit Code	Unit Name	Unit Location	Core/Option*	Period of study	Credits
CIS007-3	Comparative Integrated Systems	AA	Core	Oct-Jan	30
CIS015-3	Social and Professional Project Management	AA	Core	Feb-Jun	30

Units for Year 6

Unit Code	Unit Name	Unit Location	Core/Option*	Period of study	Credits
CIS013-3	Research Methodologies and Emerging Technologies	AA	Core	Feb-Jun	30
CIS017-3	Undergraduate Project	AA	Core	Oct-Jan	30

