

Title of Programme: Modular BSc (Hons) Computer Science (Online),
Modular BSc (Hons) Computer Science (Supported Distance
Learning)

Programme Code: CMWCSIT
CMWSLCSIT (Supported Distance Learning)

Programme Specification

This programme specification is relevant to students entering:
01 September 2023

Associate Dean of School (Academic Quality Assurance):
Mariana Lilley

Signature



A programme specification is a collection of key information about a programme of study (or course). It identifies the aims and learning outcomes of the programme, lists the modules that make up each stage (or year) of the programme, and the teaching, learning and assessment methods used by teaching staff. It also describes the structure of the programme, its progression requirements and any programme-specific regulations. This information is therefore useful to potential students to help them choose the right programme of study, to current students on the programme, and to staff teaching and administering the programme.

Summary of amendments to the programme:

Section	Amendment
D	Introduction to Programming and Discrete Structures (4WCM2006/ 4WCM2007) will run in Semesters A and B.
D	From Silicon to C (4WCM2004/ 4WCM2005) will run twice in 2023-24, and then in Semester A only from 2024-25 onwards.
D	Computational Problem Solving (4WCM2000/ 4WCM2001) will run in Semesters A and B.

If you have any queries regarding the changes, please email AQO@herts.ac.uk

Programme Specification

Modular BSc (Hons) Computer Science (Online)

Modular BSc (Hons) Computer Science (Supported Distance Learning)*

This programme specification (PS) is designed for prospective students, enrolled students, academic staff and potential employers. It provides a concise summary of the main features of the programme and the intended learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. More detailed information on the teaching, learning and assessment methods, learning outcomes and content for each module can be found in Definitive Module Documents (DMDs).

* Tutored e-Learning is the mode of study where students study the online programme through Canvas, with supplementary tutorial support from a local partner institution (the Academic Support Partner). Please refer to Table 1c.

Section 1

Awarding Institution/Body	University of Hertfordshire
Teaching Institution	University of Hertfordshire
University/partner campuses	UH Online
Programme accredited by	See Section D
Final Qualification	BSc Honours
All Final Award titles	BSc Honours in Computer Science
(Qualification and Subject)	BSc Honours in Computer Science (Applied Data Science) BSc Honours in Information Technology
FHEQ level of award	6

A. Programme Rationale

The Modular BSc Honours in Computer Science (online) is a well-established and popular degree programme. This programme is designed to mirror its campus-based BSc Honours Computer Science counterpart.

The programme is likely to appeal to mature students who are in employment and wish to study flexibly and to students from overseas who wish to gain a qualification from a British university but do not wish to spend all of their time in the UK. The final year of the programme will appeal to direct entrants who have already gained 240 credits from an HND in Computer Studies or similar qualification, both those who are newly qualified and want to continue to study, perhaps whilst in employment or seeking their first job and those who qualified some years ago and would like the opportunity to 'top up' their qualification whilst still working.

The programme recognises a broad distinction between Computer Science (CS) and Information Technology (IT) and is structured so as to allow students to progress along the two main themes of computer science and information technology. There is a common core of compulsory material to both themes in the first and second years of study to ensure that all students have the appropriate foundation for either theme. The programme therefore equips graduates for a wide variety of careers in professional roles (not necessarily constrained to the IT industry) that involve the design, development and/or the evaluation of programmed systems, or of wider socio-technical systems involving a programmed sub-system.

Further information on entry requirements is given in section G.

B. Educational Aims of the Programme

Diversity and Inclusion

Our programmes are purposefully designed to enable all students to engage meaningfully with the curriculum by being accessible and representative. We will support students to shape their learning experience, removing barriers and enabling them to succeed. The curriculum explicitly includes multiple and representative perspectives, valuing collective identities and individual diversity. Learning, teaching and assessment activities help students to understand how they can enhance outcomes both for themselves and for others. All students belong to a learning community, and during their studies we really want to hear their voices, encourage them to listen to others, and express themselves.

The programme has been devised in accordance with the University's graduate attributes of programmes of study as set out in [UPR TL03](#).

Additionally this programme aims to:

- develop a range of cognitive abilities relevant to the design, development and evaluation of programmed solutions to problems;
- develop a range of practical skills relevant to the design, development and evaluation of programmed solutions to problems;
- develop a range of transferable skills including communication, logical presentation of ideas and arguments, and independent and team working; and practice these skills within the context of their studies;
- recognise and begin to appreciate the legal, social, ethical and professional issues involved in the application of their knowledge and skills to a range of problems;
- encounter a broad range of activities drawn from a variety of problem domains.

For both **Computer Science** awards the programme additionally aims, at a high level, to provide students with opportunities to:

- develop specific in-depth technical abilities and skills that are relevant to the design, development and management of computational systems;
- develop a broad understanding of, and practical abilities in, a range of computing disciplines.

For the **Information Technology** award, the programme additionally aims, at a high level, to provide students with opportunities to:

- develop specific in-depth technical abilities and skills that are relevant to the design, development and management of computing-based systems that support information handling and decision making;
- develop a broad understanding of, and practical abilities in, a range of computing disciplines.

Graduate Attributes

Our graduates will be capable and professional, creative and enterprising, and will build their social and global awareness throughout their studies. In addition to their subject expertise and proficiency, as a University of Hertfordshire graduate, they will be:

- Professionally focused
- Globally minded
- Sustainability driven
- Digitally capable and confident
- Inclusive and collaborative
- Evidence based and ethical

C. Intended Learning Outcomes

The programme provides opportunities for students to develop and demonstrate knowledge and understanding, skills and other attributes in the following areas. The programme outcomes are referenced to the QAA benchmark statements for Computing and the Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies (2014) and the Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies (2014) and relate to the typical student. Additionally, the SEEC Credit Level Descriptors for Further and Higher Education (2021) have been used as a guiding framework for curriculum design.

Knowledge and Understanding	Teaching and learning methods	Assessment strategy
<p>A1. Demonstrate knowledge and understanding of the methodology of developing programmed solutions and a subset of the tools, notations and techniques appropriate to the various stages of development, from problem identification to system implementation and evaluation.</p> <p>A2. Demonstrate knowledge and understanding of the complexity of interactions between agents, which could be human or programmed systems, at various levels, and the implications of this for the developer of a programmed solution.</p> <p>A3. Demonstrate knowledge and understanding of the context within which a professional software designer operates and implications for professional practice including the legal, social, ethical and professional issues involved.</p> <p>Additionally for BSc Computer Science (CS) award</p> <p>A4. Demonstrate an in depth understanding of the theories and principles relevant to the design and development of programmed systems and their subsequent use in specific contexts.</p> <p>Additionally for BSc Computer Science (Applied Data Science) award</p> <p>A5. Demonstrate an in depth understanding of the theories and principles relevant to obtaining data from various sources, the essential methods for pre-</p>	<p>Acquisition of knowledge and understanding is through specific topics using a combination of online learning materials, online tutorials and guided self-study. The material is integrated via the core theme of programmed system design, and students will be helped to appreciate these topics within this framework. Tasks will in general concentrate on building proficiency and confidence at the topic level, and students will not be expected to work at the systems level without considerable support.</p> <p>Throughout, the learner is encouraged to undertake independent study both to supplement and consolidate what is being taught/learnt and to broaden their individual knowledge and understanding of the subject.</p> <p>At Level 5, for all awards routes, additional topics addressing A1 – A6 will be studied using a combination of online learning materials, online tutorials and guided self-study. Students will be expected to begin to integrate material and adopt a more critical and analytical attitude to their learning, and to the topics and tasks being taught.</p> <p>The learning opportunities will provide insight into the range of options available for solving design problems and therefore into the selection of appropriate methodological and system components, as well as of their evaluation.</p>	<p>Knowledge and understanding are assessed through a combination of primarily coursework and unseen online tests. Assessments concentrate on specific topics, within a provided framework, rather than on substantive integrative tasks.</p> <p>At Level 5, A1 – A6 will be assessed through a combination of coursework and unseen online tests. Where appropriate, assessments will also include a component of peer assessment by students. Assessments will begin to include more substantial elements of team work and project work and, through those, more substantive assessment tasks.</p> <p>At Level 5, A3 will additionally be assessed through a team-based project.</p> <p>At Level 6, A1 – A6 will again be assessed through a combination of coursework and unseen online tests; with again the opportunity for peer assessment where appropriate. There will be a substantial component of individual project-type activity, for which students will be expected to: establish for themselves the framework within which the work is carried out; select and apply knowledge and understanding as appropriate to the specific problem(s) being addressed; and evaluate solutions, reference appropriate research or scholarship.</p>

processing and cleaning data, and data analytics

Additionally for Information Technology (IT) award

A6. Demonstrate knowledge and understanding of an in depth understanding of the theories and principles relevant to the design and development of information technology systems and their subsequent use in specific contexts.

At Level 6, learning relating to A1 – A6 is expected to be increasingly independent, critical and evaluative; and students are expected to take increasing responsibility for the selection and use of theories, principles and methods in particular contexts, and for tackling particular problems. This understanding is expected to include an appreciation of the limits of applicability of theories, the uncertainty and inherent open-endedness of many practical problems in computing and of the human and societal constraints on approaches to problem solution. Some material will be presented via online learning materials and online tutorials, with significant learning undertaken and achieved through independent, self-study.

At all levels of the programme, students are encouraged to undertake independent study both to supplement and consolidate what is being taught/learned and to broaden their individual knowledge and understanding of the subject.

Intellectual skills	Teaching and learning methods	Assessment strategy
B Not applicable under QAA Benchmarking statement. Intellectual skills are subsumed under Knowledge and Understanding		

Practical skills	Teaching and learning methods	Assessment strategy
<p>C1. Use specific tools, techniques, notations and methods in the context of the design and development of programmed computer systems.</p> <p>C2. Use computer systems and associated technology to support the development of programmed systems.</p> <p>C3. Engage in effective discussion of technical information as appropriate to the system design and development task.</p> <p>C4. Carry out design activities ranging from initial problem</p>	<p>Practical skills are developed through online learning materials and online tutorials for the presentation of instructional material, with practical tasks, independent study and project work offering the opportunity to practise the skills in a supportive environment. The amount of instructional material will decrease as the programme progresses, with students being expected to take an increasing responsibility for developing their own skills and identifying resources to support their development.</p>	<p>Practical skills are assessed through coursework, and assessed indirectly through unseen online tests. The online tests will assess understanding that has developed, or been consolidated, as a result of practical activity.</p> <p>At Level 5, C3 and C4 are assessed, through a group design task.</p> <p>At Level 6, C1 – C6 will be assessed directly and indirectly. The independent project at Level 6 will assess C4 – C6.</p>

<p>identification to system implementation and evaluation, and as an individual or as a member of a team carrying out a subset of these activities.</p> <p>Additionally for BSc Computer Science (CS) awards C5. Design, implement and evaluate systems as characterised by Computer Science approaches, methodologies and practices.</p> <p>Additionally for BSc Information Technology (IT) award C6. Design, implement and evaluate systems as characterised by Information Technology approaches, methodologies and practices.</p>	<p>Level 4, 5 and 6 will address C4. The examples used at Level 4 will be less complex, and considerable support will be given in problem identification and evaluation. At Levels 5, 6 this support will be increasingly reduced and more open tasks will be set. Students will be exposed to employ a variety of technologies such as operating environments, programming languages, applications and specification techniques.</p> <p>At Level 6 students will be expected to extend their skills developed in C1 – C6 to the task of evaluating and selecting appropriate approaches to addressing specific tasks appropriate to that level.</p> <p>C1 – C6 are further developed and deepened through an individual self-defined and managed project at Level 6.</p> <p>Throughout the levels of the programme, the learner is encouraged to further develop their practical skills by independent study.</p>	<p>Typically, students passing the four Level 4 core modules together with the appropriate Level 5 core modules will be deemed to have met the minimum threshold level in C1 – C6 necessary to progress to examination for an Honours award.</p>
<p>Transferable skills</p> <p>D1. Communicate effectively orally, in writing and visually using the conventions, vocabulary and the form and register of academic expression.</p> <p>D2. Manage their own learning including time management, the organization and retrieval of information, and the identification of personal needs for continuing professional development.</p> <p>D3. Select and use a variety of modes of discourse, including mathematical, informal and diagrammatic.</p> <p>D4. Work effectively both independently and/or as part of a team.</p>	<p>Teaching and learning methods</p> <p>Transferable skills are developed through a variety of learning and teaching methods and strategies.</p> <p>Students are expected to take an increasing responsibility for their own learning as the programme progresses, and are supported in meeting D1 through tutoring and guided independent study using resources provided both locally and centrally (e.g. the Learning Resources Centre runs online sessions and produces self-study guides on information retrieval and similar topics). The development of confidence and ability to use more formal, mathematical, modes is addressed at Level 4 explicitly.</p> <p>Students are encouraged to form study groups at Level 4, and to</p>	<p>Assessment strategy</p> <p>Transferable skills are assessed through a variety of means built into the curriculum.</p> <p>At Level 4, 5 and 6, D1 is assessed in different ways e.g. a short report at Level 4, a team presentation at Level 5, an individual presentation at Level 6.</p> <p>At Levels 4, 5 and 6, D2 is assessed by setting different kinds of task, providing feedback on those tasks to students (partly through peer assessment) and encouraging reflection by students.</p> <p>At Levels 4, 5 and 6, D3 is assessed in different ways, depending on the topic and the nature of the assessment.</p>

D5. Reflect upon their work and the work of others, and explain, justify and otherwise defend their work and ideas, with reference to academic, professional issues, debates and conventions.

start building a collaborative attitude towards studying, whilst also taking responsibility for their own learning.

At Levels 4 and 5, team-working is used explicitly in the context of a design task, and students will be supported in meeting D3 through this.

D5 is developed through exposure to contemporary issues at Level 5 and beyond.

At Level 6, the project addresses D1 – D5, together with the independent aspects of D4.

During the course of the programme, assessed and non-assessed work encourages the learner to develop a wide range of transferable skills. In Level 4, this starts with closely defined and directed assignments. At Level 5 the learner is encouraged by more loosely defined projects and at Level 6, these are supported through the self-definition of work in the project.

Additionally, the independent project at Level 6 provides opportunities for students to select appropriate modes of discourse for the problem(s) they are seeking to address.

At Levels 4 and 5, D4 is assessed for group work.

At Level 6, D4 is assessed through the independent project.

At Level 6, D5 is assessed by reviewing the outcomes of assignments as well as through peer assessment, where appropriate.

D. Programme Structures, Features, Levels, Modules, and Credits

The programme offers two intakes at levels 4 and 5 (September and January), and three at level 6 (September, January and May).

The programme is offered in multiple study patterns:

For **entry at Level 4** the programme in its entirety is offered in three study patterns:

- an entirely part-time study pattern (6 years in duration); or,
- a study pattern which offers part-time study for Level 4 and then mixture of part-time and full-time study for Levels 5 and 6 (4-5 years in duration).
- For Supported Distance Learning partners only, an entirely full-time study pattern (3 years in duration).

For **entry at Level 5** the programme in its entirety is offered in two study patterns:

- an entirely part-time study pattern (4 years in duration); or,
- a study pattern which offers a mixture of part-time and full-time for Level 5 and then full-time study for Level 6 (2-3 years in duration).

For **entry at Level 6** the programme in its entirety is offered in two study patterns:

- an entirely part-time study pattern (2 years in duration); or,

- an entirely full-time study pattern (1 year in duration, for September entry only).

This programme leads to the award of a BSc Degree with Honours in Computer Science, BSc Degree with Honours in Computer Science (Applied Data Science), BSc Degree with Honours in Information Technology. For the BSc award, entry is normally at Level 4, but entry is also possible at Level 5 and at Level 6 with appropriate entry qualifications. (See further information in section G)

Once a BSc student has progressed to Level 5 and the student has made the decision to study for the Information Technology degree, or for the Computer Science degree, or for the Computer Science (Applied Data Science) degree, there is no automatic right to transfer between the different themes/routes. Requests to transfer between themes/routes will however be considered on a case-by-case basis.

Professional and Statutory Regulatory Bodies

The BSc Honours in Computer Science and BSc Honours in Information Technology are accredited by BCS, The Chartered Institute for IT for the purposes of fully meeting the academic requirement for registration as a Chartered IT Professional, for those students joining the programme at level 4.

It is planned that accreditation for the BSc Honours in Computer Science (Applied Data Science) award will be sought once the first cohort graduates.

Work-Based Learning, including Sandwich Programmes

N/A

Student Exchange programme

Incoming Exchange

N/A

Study Abroad

N/A

Programme Structure

The programme structure and progression information below (Table 1a and 1b) is provided for the Honours award. Any interim awards are identified in Table 1b. The Programme Learning Outcomes detailed above are developed and assessed through the constituent modules. Table 2 identifies where each learning outcome is assessed.

Table 1a-1 Outline Programme Structure
BSc Honours in Computer Science
Mode of study Full-time (4 years)
Entry point Semester A

Level 4: Year 1 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Introduction to Programming and Discrete Structures (COM)	4WCM2006	4WCM2007	30	90	0	10	0	A
Data Modelling for Databases (COM)	4WCM2002	4WCM2003	15	50	0	50	0	B
Team Software Project (COM)	4WCM2010	4WCM2009	15	0	0	100	0	B

Level 4: Year 2 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
From Silicon to C (COM)	4WCM2004	4WCM2005	30	60	0	40	0	A
Computational Problem Solving (COM)	4WCM2000	4WCM2001	30	70	0	30	0	B

Level 5 (120 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Accessibility and Usability (COM)	5WCM2000	5WCM2001	15	50	0	50	0	A
Database Systems (COM)	5WCM2004	5WCM2005	15	60	0	40	0	A
Programming, Algorithms and Data Structures (COM)	5WCM0017	5WCM2012	30	50	0	50	0	A
Artificial Intelligence (COM)	5WCM2006	5WCM2007	15	50	0	50	0	B
Data Science Development Exercise (COM)	5WCM2008	5WCM2009	30	25	0	75	0	B
Operating Systems and Networks (COM)	5WCM2010	5WCM2011	15	20	0	80	0	B

Level 6 (120 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Computer Systems Security (COM)	6WCM0032	6WCM0031	15	0	0	100	0	A, C
Responsible Computing (COM)	6WCM2000	6WCM2001	15	20	0	80	0	A, C
Mobile Computing (COM)	6WCM0034	6WCM0033	15	0	0	100	0	A
Software Architecture (COM)	6WCM2002	6WCM2003	15	0	0	100	0	A
Internet of Things (COM)	6WCM2004	6WCM2005	15	25	0	75	0	B
Robotics (COM)	6WCM2006	6WCM2007	15	30	0	70	0	B
Computer Science Project (COM)	6WCM0029	6WCM0030	30	0	0	80	20	B, C

Table 1a-2 Outline Programme Structure
BSc Honours in Computer Science
Mode of study Part-time (5-6 years)
Entry point Semester A

Level 4: Year 1 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	%Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Introduction to Programming and Discrete Structures (COM)	4WCM2006	4WCM2007	30	90	0	10	0	A
Data Modelling for Databases (COM)	4WCM2002	4WCM2003	15	50	0	50	0	B
Team Software Project (COM)	4WCM2010	4WCM2009	15	0	0	100	0	B

Level 4: Year 2 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	%Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
From Silicon to C (COM)	4WCM2004	4WCM2005	30	60	0	40	0	A
Computational Problem Solving (COM)	4WCM2000	4WCM2001	30	70	0	30	0	B

Level 5: Year 1 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	%Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Accessibility and Usability (COM)	5WCM2000	5WCM2001	15	50	0	50	0	A
Database Systems (COM)	5WCM2004	5WCM2005	15	60	0	40	0	A
Artificial Intelligence (COM)	5WCM2006	5WCM2007	15	50	0	50	0	B
Operating Systems and Networks (COM)	5WCM2010	5WCM2011	15	20	0	80	0	B

Level 5: Year 2 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Programming, Algorithms and Data Structures (COM)	5WCM0017	5WCM2012	30	50	0	50	0	A
Data Science Development Exercise (COM)	5WCM2008	5WCM2009	30	25	0	75	0	B

It is possible for students to study their level 5 and 6 modules in a different order, with the agreement of the Programme Leader. Additionally, students have the flexibility to switch between part-time and full-time modes at levels 5 and 6. Students are advised to seek advice on potential funding implications.

Level 6: Year 1 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Computer Systems Security (COM)	6WCM0032	6WCM0031	15	0	0	100	0	A, C
Mobile Computing (COM)	6WCM0034	6WCM0033	15	0	0	100	0	A
Internet of Things (COM)	6WCM2004	6WCM2005	15	25	0	75	0	B
Robotics (COM)	6WCM2006	6WCM2007	15	30	0	70	0	B

Level 6: Year 2 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Responsible Computing (COM)	6WCM2000	6WCM2001	15	20	0	80	0	A, C
Software Architecture (COM)	6WCM2002	6WCM2003	15	0	0	100	0	A
Computer Science Project (COM)	6WCM0029	6WCM0030	30	0	0	80	20	B, C

Table 1a-3 Outline Programme Structure

BSc Honours in Computer Science

Mode of study Full-time (3 years)

Entry point Semester A; available for Supported Distance Learning (SDL) partners only.

Level 4: Year 1 (120 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
From Silicon to C (COM)	4WCM2004	4WCM2005	30	60	0	40	0	A
Introduction to Programming and Discrete Structures (COM)	4WCM2006	4WCM2007	30	90	0	10	0	A
Computational Problem Solving (COM)	4WCM2000	4WCM2001	30	70	0	30	0	B
Data Modelling for Databases (COM)	4WCM2002	4WCM2003	15	50	0	50	0	B
Team Software Project (COM)	4WCM2010	4WCM2009	15	0	0	100	0	B

Level 5 (120 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Accessibility and Usability (COM)	5WCM2000	5WCM2001	15	50	0	50	0	A
Database Systems (COM)	5WCM2004	5WCM2005	15	60	0	40	0	A
Programming, Algorithms and Data Structures (COM)	5WCM0017	5WCM2012	30	50	0	50	0	A
Artificial Intelligence (COM)	5WCM2006	5WCM2007	15	50	0	50	0	B
Data Science Development Exercise (COM)	5WCM2008	5WCM2009	30	25	0	75	0	B
Operating Systems and Networks (COM)	5WCM2010	5WCM2011	15	20	0	80	0	B

Level 6 (120 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Computer Systems Security (COM)	6WCM0032	6WCM0031	15	0	0	100	0	A, C
Responsible Computing (COM)	6WCM2000	6WCM2001	15	20	0	80	0	A, C
Mobile Computing (COM)	6WCM0034	6WCM0033	15	0	0	100	0	A
Software Architecture (COM)	6WCM2002	6WCM2003	15	0	0	100	0	A
Internet of Things (COM)	6WCM2004	6WCM2005	15	25	0	75	0	B
Robotics (COM)	6WCM2006	6WCM2007	15	30	0	70	0	B
Computer Science Project (COM)	6WCM0029	6WCM0030	30	0	0	80	20	B, C

Table 1a-4 Outline Programme Structure
BSc Honours in Computer Science
Mode of study Full-time (4 years)
Entry point Semester B

Level 4: Year 1 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Data Modelling for Databases (COM)	4WCM2002	4WCM2003	15	50	0	50	0	B
Team Software Project (COM)	4WCM2010	4WCM2009	15	0	0	100	0	B
Introduction to Programming and Discrete Structures (COM)	4WCM2006	4WCM2007	30	90	0	10	0	A

Level 4: Year 2 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
From Silicon to C (COM)	4WCM2004	4WCM2005	30	60	0	40	0	A
Computational Problem Solving (COM)	4WCM2000	4WCM2001	30	70	0	30	0	B

Level 5 (120 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Accessibility and Usability (COM)	5WCM2000	5WCM2001	15	50	0	50	0	A
Database Systems (COM)	5WCM2004	5WCM2005	15	60	0	40	0	A
Programming, Algorithms and Data Structures (COM)	5WCM0017	5WCM2012	30	50	0	50	0	A
Artificial Intelligence (COM)	5WCM2006	5WCM2007	15	50	0	50	0	B
Data Science Development Exercise (COM)	5WCM2008	5WCM2009	30	25	0	75	0	B
Operating Systems and Networks (COM)	5WCM2010	5WCM2011	15	20	0	80	0	B

Level 6 (120 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Computer Systems Security (COM)	6WCM0032	6WCM0031	15	0	0	100	0	A, C
Responsible Computing (COM)	6WCM2000	6WCM2001	15	20	0	80	0	A, C
Mobile Computing (COM)	6WCM0034	6WCM0033	15	0	0	100	0	A
Software Architecture (COM)	6WCM2002	6WCM2003	15	0	0	100	0	A
Internet of Things (COM)	6WCM2004	6WCM2005	15	25	0	75	0	B
Robotics (COM)	6WCM2006	6WCM2007	15	30	0	70	0	B
Computer Science Project (COM)	6WCM0029	6WCM0030	30	0	0	80	20	B, C

Table 1a-5 Outline Programme Structure

BSc Honours in Computer Science

Mode of study Part-time (5-6 years)

Entry point Semester B

Level 4: Year 1 (60 credits)

Compulsory Modules Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Data Modelling for Databases (COM)	4WCM2002	4WCM2003	15	50	0	50	0	B
Team Software Project (COM)	4WCM2010	4WCM2009	15	0	0	100	0	B
Introduction to Programming and Discrete Structures (COM)	4WCM2006	4WCM2007	30	90	0	10	0	A

Level 4: Year 2 (60 credits)

Compulsory Modules Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
From Silicon to C (COM)	4WCM2004	4WCM2005	30	60	0	40	0	A
Computational Problem Solving (COM)	4WCM2000	4WCM2001	30	70	0	30	0	B

Level 5: Year 1 (60 credits)

Compulsory Modules Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Accessibility and Usability (COM)	5WCM2000	5WCM2001	15	50	0	50	0	A
Database Systems (COM)	5WCM2004	5WCM2005	15	60	0	40	0	A
Artificial Intelligence (COM)	5WCM2006	5WCM2007	15	50	0	50	0	B
Operating Systems and Networks (COM)	5WCM2010	5WCM2011	15	20	0	80	0	B

Level 5: Year 2 (60 credits)

Compulsory Modules Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Programming, Algorithms and Data Structures (COM)	5WCM0017	5WCM2012	30	50	0	50	0	A
Data Science Development Exercise (COM)	5WCM2008	5WCM2009	30	25	0	75	0	B

It is possible for students to study their level 5 and 6 modules in a different order, with the agreement of the Programme Leader. Additionally, students have the flexibility to switch between part-time and full-time modes at levels 5 and 6. Students are advised to seek advice on potential funding implications.

Level 6: Year 1 (60 credits)

	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Module Title								
Computer Systems Security (COM)	6WCM0032	6WCM0031	15	0	0	100	0	A, C
Mobile Computing (COM)	6WCM0034	6WCM0033	15	0	0	100	0	A
Internet of Things (COM)	6WCM2004	6WCM2005	15	25	0	75	0	B
Robotics (COM)	6WCM2006	6WCM2007	15	30	0	70	0	B

Level 6: Year 2 (60 credits)

	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Module Title								
Responsible Computing (COM)	6WCM2000	6WCM2001	15	20	0	80	0	A, C
Software Architecture (COM)	6WCM2002	6WCM2003	15	0	0	100	0	A
Computer Science Project (COM)	6WCM0029	6WCM0030	30	0	0	80	20	B, C

Table 1a-6 Outline Programme Structure

BSc Honours in Computer Science

Mode of study Full-time (3 years)

Entry point Semester B; available for Supported Distance Learning (SDL) partners only.

Level 4: Year 1 (120 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Computational Problem Solving (COM)	4WCM2000	4WCM2001	30	70	0	30	0	B
Data Modelling for Databases (COM)	4WCM2002	4WCM2003	15	50	0	50	0	B
Team Software Project (COM)	4WCM2010	4WCM2009	15	0	0	100	0	B
From Silicon to C (COM)	4WCM2004	4WCM2005	30	60	0	40	0	A
Introduction to Programming and Discrete Structures (COM)	4WCM2006	4WCM2007	30	90	0	10	0	A

Level 5 (120 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Accessibility and Usability (COM)	5WCM2000	5WCM2001	15	50	0	50	0	A
Database Systems (COM)	5WCM2004	5WCM2005	15	60	0	40	0	A
Programming, Algorithms and Data Structures (COM)	5WCM0017	5WCM2012	30	50	0	50	0	A
Artificial Intelligence (COM)	5WCM2006	5WCM2007	15	50	0	50	0	B
Data Science Development Exercise (COM)	5WCM2008	5WCM2009	30	25	0	75	0	B
Operating Systems and Networks (COM)	5WCM2010	5WCM2011	15	20	0	80	0	B

Level 6 (120 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Computer Systems Security (COM)	6WCM0032	6WCM0031	15	0	0	100	0	A, C
Responsible Computing (COM)	6WCM2000	6WCM2001	15	20	0	80	0	A, C
Mobile Computing (COM)	6WCM0034	6WCM0033	15	0	0	100	0	A
Software Architecture (COM)	6WCM2002	6WCM2003	15	0	0	100	0	A
Internet of Things (COM)	6WCM2004	6WCM2005	15	25	0	75	0	B
Robotics (COM)	6WCM2006	6WCM2007	15	30	0	70	0	B
Computer Science Project (COM)	6WCM0029	6WCM0030	30	0	0	80	20	B, C

Table 1a-7 Outline Programme Structure
BSc Honours in Computer Science (Applied Data Science)
Mode of study Full-time (4 years)
Entry point Semester A

Level 4: Year 1 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Introduction to Programming and Discrete Structures (COM)	4WCM2006	4WCM2007	30	90	0	10	0	A
Data Modelling for Databases (COM)	4WCM2002	4WCM2003	15	50	0	50	0	B
Team Software Project (COM)	4WCM2010	4WCM2009	15	0	0	100	0	B

Level 4: Year 2 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
From Silicon to C (COM)	4WCM2004	4WCM2005	30	60	0	40	0	A
Computational Problem Solving (COM)	4WCM2000	4WCM2001	30	70	0	30	0	B

Level 5 (120 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Accessibility and Usability (COM)	5WCM2000	5WCM2001	15	50	0	50	0	A
Database Systems (COM)	5WCM2004	5WCM2005	15	60	0	40	0	A
Programming, Algorithms and Data Structures (COM)	5WCM0017	5WCM2012	30	50	0	50	0	A
Artificial Intelligence (COM)	5WCM2006	5WCM2007	15	50	0	50	0	B
Data Science Development Exercise (COM)	5WCM2008	5WCM2009	30	25	0	75	0	B
Operating Systems and Networks (COM)	5WCM2010	5WCM2011	15	20	0	80	0	B

Level 6 (120 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Data Mining and Visualisation (COM)	6WCM0035	6WCM0036	30	50	0	50	0	A
Computer Systems Security (COM)	6WCM0032	6WCM0031	15	0	0	100	0	A, C
Responsible Computing (COM)	6WCM2000	6WCM2001	15	20	0	80	0	A, C
Machine Learning and Neural Networks (COM)	6WCM2008	6WCM2009	15	50	0	50	0	B
Principles of Data Science (COM)	6WCM2010	6WCM2011	15	40	0	60	0	B
Data Science Project (COM)	6WCM2016	6WCM2017	30	0	0	80	20	B, C

Table 1a-8 Outline Programme Structure
BSc Honours in Computer Science (Applied Data Science)
Mode of study Part-time (5-6 years)
Entry point Semester A

Level 4: Year 1 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	%Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Introduction to Programming and Discrete Structures (COM)	4WCM2006	4WCM2007	30	90	0	10	0	A
Data Modelling for Databases (COM)	4WCM2002	4WCM2003	15	50	0	50	0	B
Team Software Project (COM)	4WCM2010	4WCM2009	15	0	0	100	0	B

Level 4: Year 2 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	%Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
From Silicon to C (COM)	4WCM2004	4WCM2005	30	60	0	40	0	A
Computational Problem Solving (COM)	4WCM2000	4WCM2001	30	70	0	30	0	B

Level 5: Year 1 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	%Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Accessibility and Usability (COM)	5WCM2000	5WCM2001	15	50	0	50	0	A
Database Systems (COM)	5WCM2004	5WCM2005	15	60	0	40	0	A
Artificial Intelligence (COM)	5WCM2006	5WCM2007	15	50	0	50	0	B
Operating Systems and Networks (COM)	5WCM2010	5WCM2011	15	20	0	80	0	B

Level 5: Year 2 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Programming, Algorithms and Data Structures (COM)	5WCM0017	5WCM2012	30	50	0	50	0	A
Data Science Development Exercise (COM)	5WCM2008	5WCM2009	30	25	0	75	0	B

It is possible for students to study their level 5 and 6 modules in a different order, with the agreement of the Programme Leader. Additionally, students have the flexibility to switch between part-time and full-time modes at levels 5 and 6. Students are advised to seek advice on potential funding implications.

Level 6: Year 1 (60 credits)

	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Module Title								
Data Mining and Visualisation (COM)	6WCM0035	6WCM0036	30	50	0	50	0	A
Machine Learning and Neural Networks (COM)	6WCM2008	6WCM2009	15	50	0	50	0	B
Principles of Data Science (COM)	6WCM2010	6WCM2011	15	40	0	60	0	B

Level 6: Year 2 (60 credits)

	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Module Title								
Computer Systems Security (COM)	6WCM0032	6WCM0031	15	0	0	100	0	A, C
Responsible Computing (COM)	6WCM2000	6WCM2001	15	20	0	80	0	A, C
Data Science Project (COM)	6WCM2016	6WCM2017	30	0	0	80	20	B, C

Table 1a-9 Outline Programme Structure
BSc Honours in Computer Science (Applied Data Science)
Mode of study Full-time (4 years)
Entry point Semester B

Level 4: Year 1 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Data Modelling for Databases (COM)	4WCM2002	4WCM2003	15	50	0	50	0	B
Team Software Project (COM)	4WCM2010	4WCM2009	15	0	0	100	0	B
Introduction to Programming and Discrete Structures (COM)	4WCM2006	4WCM2007	30	90	0	10	0	A

Level 4: Year 2 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
From Silicon to C (COM)	4WCM2004	4WCM2005	30	60	0	40	0	A
Computational Problem Solving (COM)	4WCM2000	4WCM2001	30	70	0	30	0	B

Level 5 (120 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Accessibility and Usability (COM)	5WCM2000	5WCM2001	15	50	0	50	0	A
Database Systems (COM)	5WCM2004	5WCM2005	15	60	0	40	0	A
Programming, Algorithms and Data Structures (COM)	5WCM0017	5WCM2012	30	50	0	50	0	A
Artificial Intelligence (COM)	5WCM2006	5WCM2007	15	50	0	50	0	B
Data Science Development Exercise (COM)	5WCM2008	5WCM2009	30	25	0	75	0	B
Operating Systems and Networks (COM)	5WCM2010	5WCM2011	15	20	0	80	0	B

Level 6 (120 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Data Mining and Visualisation (COM)	6WCM0035	6WCM0036	30	50	0	50	0	A
Computer Systems Security (COM)	6WCM0032	6WCM0031	15	0	0	100	0	A, C
Responsible Computing (COM)	6WCM2000	6WCM2001	15	20	0	80	0	A, C
Machine Learning and Neural Networks (COM)	6WCM2008	6WCM2009	15	50	0	50	0	B
Principles of Data Science (COM)	6WCM2010	6WCM2011	15	40	0	60	0	B
Data Science Project (COM)	6WCM2016	6WCM2017	30	0	0	80	20	B, C

Table 1a-10 Outline Programme Structure
BSc Honours in Computer Science (Applied Data Science)
Mode of study Part-time (5-6 years)
Entry point Semester B

Level 4: Year 1 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	%Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Data Modelling for Databases (COM)	4WCM2002	4WCM2003	15	50	0	50	0	B
Team Software Project (COM)	4WCM2010	4WCM2009	15	0	0	100	0	B
Introduction to Programming and Discrete Structures (COM)	4WCM2006	4WCM2007	30	90	0	10	0	A

Level 4: Year 2 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	%Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
From Silicon to C (COM)	4WCM2004	4WCM2005	30	60	0	40	0	A
Computational Problem Solving (COM)	4WCM2000	4WCM2001	30	70	0	30	0	B

Level 5: Year 1 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	%Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Accessibility and Usability (COM)	5WCM2000	5WCM2001	15	50	0	50	0	A
Database Systems (COM)	5WCM2004	5WCM2005	15	60	0	40	0	A
Artificial Intelligence (COM)	5WCM2006	5WCM2007	15	50	0	50	0	B
Operating Systems and Networks (COM)	5WCM2010	5WCM2011	15	20	0	80	0	B

Level 5: Year 2 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Programming, Algorithms and Data Structures (COM)	5WCM0017	5WCM2012	30	50	0	50	0	A
Data Science Development Exercise (COM)	5WCM2008	5WCM2009	30	25	0	75	0	B

It is possible for students to study their level 5 and 6 modules in a different order, with the agreement of the Programme Leader. Additionally, students have the flexibility to switch between part-time and full-time modes at levels 5 and 6. Students are advised to seek advice on potential funding implications.

Level 6: Year 1 (60 credits)

	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Module Title								
Data Mining and Visualisation (COM)	6WCM0035	6WCM0036	30	50	0	50	0	A
Machine Learning and Neural Networks (COM)	6WCM2008	6WCM2009	15	50	0	50	0	B
Principles of Data Science (COM)	6WCM2010	6WCM2011	15	40	0	60	0	B

Level 6: Year 2 (60 credits)

	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Module Title								
Computer Systems Security (COM)	6WCM0032	6WCM0031	15	0	0	100	0	A, C
Responsible Computing (COM)	6WCM2000	6WCM2001	15	20	0	80	0	A, C
Data Science Project (COM)	6WCM2016	6WCM2017	30	0	0	80	20	B, C

Table 1a-11 Outline Programme Structure
BSc Honours in Information Technology
Mode of study Full-time (4 years)
Entry point Semester A

Level 4: Year 1 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Introduction to Programming and Discrete Structures (COM)	4WCM2006	4WCM2007	30	90	0	10	0	A
Data Modelling for Databases (COM)	4WCM2002	4WCM2003	15	50	0	50	0	B
Team Software Project (COM)	4WCM2010	4WCM2009	15	0	0	100	0	B

Level 4: Year 2 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
From Silicon to C (COM)	4WCM2004	4WCM2005	30	60	0	40	0	A
Computational Problem Solving (COM)	4WCM2000	4WCM2001	30	70	0	30	0	B

Level 5 (120 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Accessibility and Usability (COM)	5WCM2000	5WCM2001	15	50	0	50	0	A
Database Systems (COM)	5WCM2004	5WCM2005	15	60	0	40	0	A
Programming, Algorithms and Data Structures (COM)	5WCM0017	5WCM2012	30	50	0	50	0	A
Artificial Intelligence (COM)	5WCM2006	5WCM2007	15	50	0	50	0	B
Data Science Development Exercise (COM)	5WCM2008	5WCM2009	30	25	0	75	0	B
Operating Systems and Networks (COM)	5WCM2010	5WCM2011	15	20	0	80	0	B

Level 6 (120 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Data Mining and Visualisation (COM)	6WCM0035	6WCM0036	30	50	0	50	0	A
Computer Systems Security (COM)	6WCM0032	6WCM0031	15	0	0	100	0	A, C
Responsible Computing (COM)	6WCM2000	6WCM2001	15	20	0	80	0	A, C
Cloud Computing (COM)	6WCM2012	6WCM2013	15	40	0	60	0	B
User Experience (COM)	6WCM2014	6WCM2015	15	0	0	100	0	B
Information Technology Project (COM)	6WCM0039	6WCM0040	30	0	0	80	20	B, C

Table 1a-12 Outline Programme Structure
BSc Honours in Information Technology
Mode of study Part-time (5-6 years)
Entry point Semester A

Level 4: Year 1 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	%Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Introduction to Programming and Discrete Structures (COM)	4WCM2006	4WCM2007	30	90	0	10	0	A
Data Modelling for Databases (COM)	4WCM2002	4WCM2003	15	50	0	50	0	B
Team Software Project (COM)	4WCM2010	4WCM2009	15	0	0	100	0	B

Level 4: Year 2 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	%Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
From Silicon to C (COM)	4WCM2004	4WCM2005	30	60	0	40	0	A
Computational Problem Solving (COM)	4WCM2000	4WCM2001	30	70	0	30	0	B

Level 5: Year 1 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	%Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Accessibility and Usability (COM)	5WCM2000	5WCM2001	15	50	0	50	0	A
Database Systems (COM)	5WCM2004	5WCM2005	15	60	0	40	0	A
Artificial Intelligence (COM)	5WCM2006	5WCM2007	15	50	0	50	0	B
Operating Systems and Networks (COM)	5WCM2010	5WCM2011	15	20	0	80	0	B

Level 5: Year 2 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Programming, Algorithms and Data Structures (COM)	5WCM0017	5WCM2012	30	50	0	50	0	A
Data Science Development Exercise (COM)	5WCM2008	5WCM2009	30	25	0	75	0	B

It is possible for students to study their level 5 and 6 modules in a different order, with the agreement of the Programme Leader. Additionally, students have the flexibility to switch between part-time and full-time modes at levels 5 and 6. Students are advised to seek advice on potential funding implications.

Level 6: Year 1 (60 credits)

	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Module Title								
Data Mining and Visualisation (COM)	6WCM0035	6WCM0036	30	50	0	50	0	A
Cloud Computing (COM)	6WCM2012	6WCM2013	15	40	0	60	0	B
User Experience (COM)	6WCM2014	6WCM2015	15	0	0	100	0	B

Level 6: Year 2 (60 credits)

	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Module Title								
Computer Systems Security (COM)	6WCM0032	6WCM0031	15	0	0	100	0	A, C
Responsible Computing (COM)	6WCM2000	6WCM2001	15	20	0	80	0	A, C
Information Technology Project (COM)	6WCM0039	6WCM0040	30	0	0	80	20	B, C

Table 1a-13 Outline Programme Structure
BSc Honours in Information Technology
Mode of study Full-time (4 years)
Entry point Semester B

Level 4: Year 1 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Data Modelling for Databases (COM)	4WCM2002	4WCM2003	15	50	0	50	0	B
Team Software Project (COM)	4WCM2010	4WCM2009	15	0	0	100	0	B
Introduction to Programming and Discrete Structures (COM)	4WCM2006	4WCM2007	30	90	0	10	0	A

Level 4: Year 2 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
From Silicon to C (COM)	4WCM2004	4WCM2005	30	60	0	40	0	A
Computational Problem Solving (COM)	4WCM2000	4WCM2001	30	70	0	30	0	B

Level 5 (120 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Accessibility and Usability (COM)	5WCM2000	5WCM2001	15	50	0	50	0	A
Database Systems (COM)	5WCM2004	5WCM2005	15	60	0	40	0	A
Programming, Algorithms and Data Structures (COM)	5WCM0017	5WCM2012	30	50	0	50	0	A
Artificial Intelligence (COM)	5WCM2006	5WCM2007	15	50	0	50	0	B
Data Science Development Exercise (COM)	5WCM2008	5WCM2009	30	25	0	75	0	B
Operating Systems and Networks (COM)	5WCM2010	5WCM2011	15	20	0	80	0	B

Level 6 (120 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Data Mining and Visualisation (COM)	6WCM0035	6WCM0036	30	50	0	50	0	A
Computer Systems Security (COM)	6WCM0032	6WCM0031	15	0	0	100	0	A, C
Responsible Computing (COM)	6WCM2000	6WCM2001	15	20	0	80	0	A, C
Cloud Computing (COM)	6WCM2012	6WCM2013	15	40	0	60	0	B
User Experience (COM)	6WCM2014	6WCM2015	15	0	0	100	0	B
Information Technology Project (COM)	6WCM0039	6WCM0040	30	0	0	80	20	B, C

Table 1a-14 Outline Programme Structure
BSc Honours in Information Technology
Mode of study Part-time (5-6 years)
Entry point Semester B

Level 4: Year 1 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	%Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Data Modelling for Databases (COM)	4WCM2002	4WCM2003	15	50	0	50	0	B
Team Software Project (COM)	4WCM2010	4WCM2009	15	0	0	100	0	B
Introduction to Programming and Discrete Structures (COM)	4WCM2006	4WCM2007	30	90	0	10	0	A

Level 4: Year 2 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	%Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
From Silicon to C (COM)	4WCM2004	4WCM2005	30	60	0	40	0	A
Computational Problem Solving (COM)	4WCM2000	4WCM2001	30	70	0	30	0	B

Level 5: Year 1 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	%Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Accessibility and Usability (COM)	5WCM2000	5WCM2001	15	50	0	50	0	A
Database Systems (COM)	5WCM2004	5WCM2005	15	60	0	40	0	A
Artificial Intelligence (COM)	5WCM2006	5WCM2007	15	50	0	50	0	B
Operating Systems and Networks (COM)	5WCM2010	5WCM2011	15	20	0	80	0	B

Level 5: Year 2 (60 credits)

Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Compulsory Modules								
Programming, Algorithms and Data Structures (COM)	5WCM0017	5WCM2012	30	50	0	50	0	A
Data Science Development Exercise (COM)	5WCM2008	5WCM2009	30	25	0	75	0	B

It is possible for students to study their level 5 and 6 modules in a different order, with the agreement of the Programme Leader. Additionally, students have the flexibility to switch between part-time and full-time modes at levels 5 and 6. Students are advised to seek advice on potential funding implications.

Level 6: Year 1 (60 credits)

Compulsory Modules Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Data Mining and Visualisation (COM)	6WCM0035	6WCM0036	30	50	0	50	0	A
Cloud Computing (COM)	6WCM2012	6WCM2013	15	40	0	60	0	B
User Experience (COM)	6WCM2014	6WCM2015	15	0	0	100	0	B

Level 6: Year 2 (60 credits)

Compulsory Modules Module Title	Module Code	SDL Module Code	Credit Points	% Test	% Examination	% Coursework	% Practical	Semesters
Computer Systems Security (COM)	6WCM0032	6WCM0031	15	0	0	100	0	A, C
Responsible Computing (COM)	6WCM2000	6WCM2001	15	20	0	80	0	A, C
Information Technology Project (COM)	6WCM0039	6WCM0040	30	0	0	80	20	B, C

Progression

UPR AS14 contains the University regulations governing the awards of this programme.

Progression from level 4 to level 5 require a minimum of 75 credit points at level 4. Any level 4 shortfall should be redeemed at the first available opportunity.

Progression from level 5 to level 6 require a minimum of 210 credit points, including 90 credit points at level 4. Any level 4/ level 5 shortfalls should be redeemed at the first available opportunity.

Honours classification

The University has approved structure and assessment regulations common to all programmes. Full details are provided in [UPR AS14](#), Section D.

Final and interim awards

The programme provides the following final (see Table 1b-1) and interim awards (see Table 1b-2):

Table 1b-1: Final Awards

Final Award	Award Title	Minimum requirements	Available at end of level:	Programme Learning Outcomes developed (see above)
BSc (Hons)	Computer Science	360 credit points including 240 at level 6/5 of which 120 must be at level 6 and include all core modules for the award.	6	All programme learning outcomes for the specific award (see Table 2)
BSc (Hons)	Computer Science (Applied)	360 credit points including 240 at level 6/5 of which 120 must be at level 6	6	All programme learning outcomes for the specific award (see Table 2)

	Data Science)	and include all core modules for the award.		
BSc (Hons)	Information Technology	360 credit points including 240 at level 6/5 of which 120 must be at level 6 and include all core modules for the award.	6	All programme learning outcomes for the specific award (see Table 2)

Table 1b-2: Interim Awards

Interim Award	Award Title	Minimum requirements	Available at end of Level	Programme Learning Outcomes developed (see above)
University Certificate		45 credit points at level 4	4	See UPR AS11, section 13: http://sitem.herts.ac.uk/secreg/upr/AS11.htm
Certificate of Higher Education		120 credit points at level 4	4, 5	See UPR AS11, section 13: http://sitem.herts.ac.uk/secreg/upr/AS11.htm
Diploma of Higher Education		240 credit points including at least 120 at level 5	5, 6	See UPR AS11, section 13: http://sitem.herts.ac.uk/secreg/upr/AS11.htm
BSc	Computer Science	300 credit points including 180 at level 6/5 of which 60 must be core for the specific award at level 6. Direct entrants at Level 6 must meet the minimum University of Hertfordshire credit and level requirements defined in UPR AS11 , including a minimum of 75 UH credits at Level 6.	6	A subset of the programme learning outcomes (see table 2) depending on the student's individual modules passed.
BSc	Computer Science (Applied Data Science)	300 credit points including 180 at level 6/5 of which 60 must be core at level 6 for the specific award, and include 6WCM2008 Machine Learning and Neural Networks and/or 6WCM2010 Principles of Data Science.	6	A subset of the programme learning outcomes (see table 2) depending on the student's individual modules passed.

		Direct entrants at Level 6 must meet the minimum University of Hertfordshire credit and level requirements defined in UPR AS11 , including a minimum of 75 UH credits at Level 6 (the maximum APL is 225 credits at Levels 4 and 5).		
BSc	Information Technology	300 credit points including 180 at level 6/5 of which 60 must be at level 6 and include 6WCM2012 Cloud Computing and/or 6WCM2014 User Experience. Direct entrants at Level 6 must meet the minimum University of Hertfordshire credit and level requirements defined in UPR AS11 , including a minimum of 75 UH credits at Level 6 (the maximum APL is 225 credits at Levels 4 and 5).	6	A subset of the programme learning outcomes (see table 2) depending on the student's individual modules passed.

Programme-specific assessment regulations

The programme complies with the University's academic regulations (in particular, [UPR AS11](#), [UPR AS12/UPR AS13](#) and [UPR AS14](#)) with the exception of those listed below, which have been approved by the University:

- A compensated pass cannot be awarded for the individual project module.

Period of registration: The maximum period within which a student may gain an award on the programme is eight (8) years from the student's first date of registration on it for students who joined the programme at Level 4. The maximum period of registration for students who joined the programme at Level 6 is four (4) years.

At level 6, students must typically have studied and passed at least 45 credits prior to enrolling on the final year project module.

Table 1c. Support of students in different modes of study

This programme supports two study modes: online and tutored e-learning. The online mode is fully managed by the programme, and the tutored e-learning mode is managed by the programme but supported by a local Support Centre (this mode is also called Supported Distance Learning (SDL)). Student support for a variety of activities on the two modes is shown below.

ACTIVITY	STUDY MODE	
	ONLINE MODE	TUTORED E-LEARNING MODE ¹
Delivery of primary teaching material	“Anywhere, anytime” study of materials prepared by UH staff obtainable electronically	By study of materials prepared by UH staff obtainable electronically
Tutorial support	By electronic communication with UH staff “anywhere, anytime”, subject to reasonable delays in response (normally 2 working days)	By Support Centre academic staff in class contact and electronically ²
Practical work	By “anywhere, anytime” private study supported by UH staff (academic and technical), subject to reasonable delays in response	By Support Centre staff (academic and technical) in class contact ² and by private study by the student
Setting and marking of assessed work	By UH staff	By UH staff
Delivery of assessment	By UH staff	By Support Centre academic staff in class contact
Books and Journals	eBooks are supplied by the UH Learning and Information Services	eBooks are supplied by the UH Learning and Information Services
Pastoral care	UH staff	Support Centre staff
Student administration	UH staff	UH staff
Private study	By the student at their residence or elsewhere by their choice	By the student at the study centre, their residence or elsewhere by their choice
Project supervision	By UH staff	By UH staff

¹ A full-time student is expected to study for approximately 30-40 hours per week, some of which will be at the Support Centre. The Support Centre will be expected to provide facilities for students to study on site for at least 15 hours per week for a full-time student.

² This support will typically entail at least 1 hour of in-person tutorial per module per week.

E. Management of Programme & Support for student learning.

Management

The programme is managed and administered through:

- Dean of School;
- Associate Dean (Academic Quality Assurance);
- Associate Dean (Learning, Teaching and Student Experience);
- Programme Leader to help students understand the programme structure;
- Student representatives on programme committees;
- Module Leaders who are responsible for individual modules;
- A Collaborative Partnership Leader, who provides support and facilitate communication between UH and the Academic Support Partner.

Support

Students are supported by:

- An induction week at the beginning of each new academic session;

- A Programme Leader to help students understand the programme structure, and provide pastoral support;
- Academic support which will be provided by academic staff who have individual responsibility for a group of students on a module;
- Student representatives on programme committees;
- A designated programme administrator;
- Studynet, a versatile online inter-active intranet and learning environment;
- Guided student-centred learning on Studynet module sites;
- A range of online learning materials and activities specially designed to support students in their studies;
- Access to extensive digital and print collections of information resources;
- Office of Dean of Students, incorporating Counselling
- University Disability Advisors
- An Equality Office
- Careers Enterprise and Employment Services
- The Students' Union.

F. Other sources of information

In addition to this Programme Specification, the University publishes guidance to registered students on the programme and its constituent modules:

- A Programme (or Student) Handbook;
- A Definitive Module Document (DMD) for each constituent module.

The [Ask Herts](#) website provides information on a wide range of resources and services available at the University of Hertfordshire including academic support, accommodation, fees, funding, visas, wellbeing services and student societies.

As a condition of registration, all students of the University of Hertfordshire are required to comply with the University's rules, regulations and procedures. These are published in a series of documents called 'University Policies and Regulations' (UPRs). The University requires that all students consult these documents which are available on-line, on the UPR web site, at: <http://www.herts.ac.uk/secreg/upr/>. In particular, [UPR SA07](#) 'Regulations and Advice for Students' Particular Attention - Index' provides information on the UPRs that contain the academic regulations of particular relevance for undergraduate and taught postgraduate students.

In accordance with section 4(5) of the Higher Education and Research Act 2017 (HERA), the UK Office for Students (OfS) has registered the University of Hertfordshire in the register of English higher education providers. The Register can be viewed at: <https://www.officeforstudents.org.uk/advice-and-guidance/the-register/the-ofs-register/>.

G. Entry requirements

For current entry tariff point requirements, please refer to the relevant page for the Course on the University website or on the online prospectus.

For entry to Level 5, students will have completed 120 credits from an appropriate programme. In addition to accruing the appropriate number and level of credit points or equivalent, admission to the programme is on the basis that applicants have successfully completed a programme of study that is broadly equivalent to Level 4 of the campus-based based programme.

For entry to Level 6, students will have completed 240 credits from an HND Computer Studies, Diploma or Degree or equivalent. In addition to accruing the appropriate number and level of credit points or equivalent, admission to the programme is on the basis that applicants have successfully completed a

programme of study that is broadly equivalent to Levels 4 and 5 of the campus-based based programme.

The programme is subject to the University's Principles, Policies and Regulations for the Admission of Students to Undergraduate and Taught Postgraduate Programmes (in UPR SA03), along with associated procedures. These will take account of University policy and guidelines for assessing accredited prior certificated learning (APCL) and accredited prior experiential learning (APEL).

If you would like this information in an alternative format, please contact: UH Online Degrees online-degrees@herts.ac.uk

If you wish to receive a copy of the latest External Examiner's Report for the programme, please email a request to aqo@herts.ac.uk

BSc (Hons) Computer Science and BSc (Hons) Information Technology

Table 2: Development of Intended Programme Learning Outcomes in the Constituent Modules

This map identifies where the programme learning outcomes are assessed in the constituent modules. It provides (i) an aid to academic staff in understanding how individual modules contribute to the programme aims (ii) a checklist for quality control purposes and (iii) a means to help students monitor their own learning, personal and professional development as the programme progresses.

				Programme Learning Outcomes (as identified in Section 1 and the following page)																
				Knowledge & Understanding						Practical Skills						Transferable Skills				
Level	Module Title	Module Code	Compulsory for award	A1	A2	A3	A4	A5	A6	C1	C2	C3	C4	C5	C6	D1	D2	D3	D4	D5
Level 4	Introduction to Programming and Discrete Structures (COM)	4WCM2006	C(All)	X	X					X	X		X				X	X	X	
	Data Modelling for Databases (COM)	4WCM2002	C(All)	X	X		X	X	X	X	X		X			X	X	X	X	
	Computational Problem Solving (COM)	4WCM2000	C(All)	X	X					X	X		X				X	X	X	
	Team Software Project (COM)	4WCM2010	C(All)	X	X	X				X	X	X	X	X	X	X	X	X	X	X
	From Silicon to C (COM)	4WCM2004	C(All)	X	X					X	X		X				X		X	
Level 5	Programming, Algorithms and Data Structures (COM)	5WCM0017	C(All)	X			X	X	X	X			X	X	X		X	X		
	Data Science Development Exercise (COM)	5WCM2008	C(All)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Accessibility and Usability (COM)	5WCM2000	C(All)	X	X	X				X		X	X			X	X	X	X	
	Database Systems (COM)	5WCM2004	C(All)	X		X	X	X	X	X		X		X	X	X	X		X	
	Operating Systems and Networks (COM)	5WCM2010	C(All)		X		X	X	X	X			X	X	X					
	Artificial Intelligence (COM)	5WCM2006	C(All)	X	X					X	X		X			X	X			

				Programme Learning Outcomes (as identified in Section 1 and the following page)																
				Knowledge & Understanding						Practical Skills						Transferable Skills				
Level	Module Title	Module Code	Compulsory for award	A1	A2	A3	A4	A5	A6	C1	C2	C3	C4	C5	C6	D1	D2	D3	D4	D5
Level 6	Information Technology Project (COM)	6WCM0039	C(IT)	X	X	X			X	X	X	X	X		X	X	X	X	X	X
	Computer Science Project (COM)	6WCM0029	C(CS)	X	X	X	X			X	X	X	X	X		X	X	X	X	X
	Data Science Project (COM)	6WCM2016	C(ADS)	X	X	X		X		X	X	X	X	X		X	X	X	X	X
	Computer Systems Security (COM)	6WCM0032	C(All)	X	X	X	X	X	X		X						X			
	Responsible Computing (COM)	6WCM2000	C(All)			X	X	X	X								X		X	X
	Principles of Data Science (COM)	6WCM2010	C(ADS)		X			X		X				X			X	X		
	Machine Learning and Neural Networks (COM)	6WCM2008	C(ADS)					X					X				X			
	Data Mining and Visualisation (COM)	6WCM0035	C(IT), C(ADS)		X			X	X	X					X	X		X	X	
	User Experience (COM)	6WCM2014	C(IT)	X	X				X	X							X			X
	Cloud Computing (COM)	6WCM2012	C(IT)	X	X	X			X	X	X		X		X	X	X			X
	Mobile Computing (COM)	6WCM0034	C(CS)	X			X			X				X			X			
	Internet of Things (COM)	6WCM2004	C(CS)	X			X			X							X	X	X	X
	Software Architecture (COM)	6WCM2002	C(CS)	X	X		X					X	X				X	X		X
	Robotics (COM)	6WCM2006	C(CS)	X	X		X				X			X						

KEY TO PROGRAMME LEARNING OUTCOMES

Knowledge and Understanding

- A1. The methodology of developing programmed solutions and a subset of the tools, notations and techniques appropriate to the various stages of development, from problem identification to system implementation and evaluation.
- A2. The complexity of interactions between agents, which could be human or programmed systems, at various levels, and the implications of this for the developer of a programmed solution.
- A3. The context within which a professional software designer operates and implications for professional practice including the legal, social, ethical and professional issues involved.

Additionally for the BSc Computer Science award

- A4. An in depth understanding of the theories and principles relevant to the design and development of programmed systems and their subsequent use in specific contexts.

Additionally for the BSc Computer Science (Applied Data Science)

- A5. An in depth understanding of the theories and principles relevant to obtaining data from various sources, the essential methods for pre-processing and cleaning data, and data analytics.

Additionally for Information Technology (IT) award

- A6. An in depth understanding of the theories and principles relevant to the design and development of information technology systems and their subsequent use in specific contexts.

Intellectual Skills

Not applicable under QAA Benchmarking statement. Intellectual skills are subsumed under Knowledge and Understanding

Practical Skills

- C1. Use specific tools, techniques, notations and methods in the context of the design and development of programmed computer systems.
- C2. Use computer systems and associated technology to support the development of programmed systems.
- C3. Engage in effective discussion of technical information as appropriate to the system design and development task.
- C4. Carry out design activities ranging from initial problem identification to system implementation and evaluation, and as an individual or as a member of a team carrying out a subset of these activities.

Additionally for the BSc Computer Science (CS) awards

- C5. Design, implement and evaluate systems as characterised by Computer Science approaches, methodologies and practices.

Additionally for BSc Information Technology (IT) award

- C6. Design, implement and evaluate systems as characterised by Information Technology approaches, methodologies and practices.

Transferable Skills

- D1. Communicate effectively orally, in writing and visually using the conventions, vocabulary and the form and register of academic expression.
- D2. Manage their own learning including time management, the organization and retrieval of information, and the identification of personal needs for continuing professional development.
- D3. Select and use a variety of modes of discourse, including mathematical, informal and diagrammatic.
- D4. Work effectively both independently and/or as part of a team.
- D5. Reflect upon their work and the work of others, and explain, justify and otherwise defend their work and ideas, with reference to academic, professional issues, debates and conventions.

Table 3: Development of Graduate Attributes in the Constituent Modules

This map identifies where the Graduate Attributes are delivered in the constituent modules. It provides (i) an aid to academic staff in understanding how individual modules contribute to the development of the Graduate Attributes (ii) a checklist for quality control purposes and (iii) a means to help students monitor their own personal and professional development as the programme progresses.

D = Delivered

	Module Title	Module Code	Professionally Focused	Globally Minded	Sustainability Driven	Digitally capable & confident	Inclusive and collaborative	Evidenced based and Ethical
Level 4	Introduction to Programming and Discrete Structures (COM)	4WCM2006	D			D		D
	Data Modelling for Databases (COM)	4WCM2002	D			D		D
	Computational Problem Solving (COM)	4WCM2000	D			D		D
	Team Software Project (COM)	4WCM2010	D	D	D	D	D	D
	From Silicon to C (COM)	4WCM2004	D		D	D		D
Level 5	Programming, Algorithms and Data Structures (COM)	5WCM0017	D		D	D		D
	Data Science Development Exercise (COM)	5WCM2008	D	D		D	D	D
	Accessibility and Usability (COM)	5WCM2000	D	D	D	D	D	D
	Database Systems (COM)	5WCM2004	D			D		D
	Operating Systems and Networks (COM)	5WCM2010	D			D		D
	Artificial Intelligence (COM)	5WCM2006	D			D		D
Level 6	Information Technology Project (COM)	6WCM0039	D			D	D	D
	Computer Science Project (COM)	6WCM0029	D			D	D	D
	Data Science Project (COM)	6WCM2016	D			D	D	D
	Computer Systems Security (COM)	6WCM0032	D			D		D
	Responsible Computing (COM)	6WCM2000	D	D	D	D	D	D
	Principles of Data Science (COM)	6WCM2010	D			D		D
	Machine Learning and Neural Networks (COM)	6WCM2008	D			D		D
	Data Mining and Visualisation (COM)	6WCM0035	D			D	D	D

User Experience (COM)	6WCM2014	D			D		D
Cloud Computing (COM)	6WCM2012	D	D	D	D		D
Mobile Computing (COM)	6WCM0034	D			D		D
Internet of Things (COM)	6WCM2004	D			D		D
Software Architecture (COM)	6WCM2002	D			D		D
Robotics (COM)	6WCM2006	D			D		D

Section 2

Programme management

Relevant QAA subject benchmarking statements	Computing September 2017
Type of programme	Undergraduate
Date of validation/last periodic review	February 22
Date of production/ last revision of PS	March 2023
Relevant to level/cohort	Level 4 entering September 2022
Administrative School	School of Physics, Engineering & Computer Science
Language of Delivery	English

Table 4 Course structure

Course details			
Course Code	Course Description	HECOS	UCAS
CMWCSIT	Modular BSc (Hons) Computer Science (Online) BSc (Hons) Computer Science (Applied Data Science) (Online) BSc (Hons) Information Technology (Online)	100372 (50%); 100366,(50%)	N/A
CMWSLCSIT	Modular BSc (Hons) Computer Science (Supported Distance Learning)	100372 (50%); 100366,(50%)	N/A