Programme Specification: Post Graduate Taught

For Academic Year 2025/26

1. Course Summary

Names of programme and award title(s)	MSc Computer Science MSc Computer Science with Artificial Intelligence MSc Computer Science with Data Analytics
Award type	Taught Masters
Mode of study	Part-time
Framework of Higher Education Qualification (FHEQ) level of final award	Level 7
Normal length of the programme	2 years
Maximum period of registration	The normal length as specified above plus 3 years
Location of study	Online
Accreditation (if applicable)	N/a
Regulator	Office for Students (OfS)
Tuition Fees	Each module taken is individually costed. The fees for 2025/26 are: a standard 15-credit module costs £620, the 45-credit dissertation module costs £1,860 and the full fee for the programme is £7,440*

How this information might change: *Please read the important information at http://www.keele.ac.uk/student-agreement/. This explains how and why we may need to make changes to the information provided in this document and to help you understand how we will communicate with you if this happens.*

* *We reserve the right to increase fees in subsequent years of study by an inflationary amount. Please refer to the accompanying Student Terms & Conditions for full details. Further information on fees can be found at http://www.keele.ac.uk/studentfunding/tuitionfees/*

2. Overview of the Programme

This is an online MSc with three programmes: MSc Computer Science, MSc Computer Science with Artificial Intelligence, and MSc Computer Science with Data Analytics. The programmes will create professional computer specialists of the future by providing them with a flexible study environment that they can fit around their personal needs and career aims.

The courses will develop and extend the practical skills that are necessary for the designing, building, deployment and evaluation of software and computer applications in a variety of industrial contexts. The MSc Computer Science is for students who wish to gain a broad understanding of computer science and software development without taking a specialist route. The MSc Computer Science with Artificial Intelligence provides a more in-depth study of artificial intelligence and machine learning, while the MSc Computer Science with Data Analytics is for those looking to specialise and pursue a career in the rapidly growing area of data analytics and data science.

It is expected that graduates from these programmes will be able to pursue a wide variety of careers ranging from roles as software developers and engineers, programming analysts, system designers and web developers through to IT management roles, business intelligence, and consultancy amongst others. The courses recognise the importance of computer science and use compulsory modules to deliver key skills and enable students to obtain the required knowledge for such roles.

3. Aims of the programme

The broad aims of the programmes are to:

- cover a range of topics made accessible to people with any university study background and not requiring any previous experience in studying computer science or mathematics.
- deliver to the students knowledge which allows them to fully participate in the development of modern software systems and to apply an approach to the management and control of such activities;
- provide students with the research and scholarship skills to undertake independent research and to develop software applications;
- develop critical, analytical and problem based learning skills;
- develop student-centred independent active learning;
- improve students' communication, numeracy, time management, self-management and advance professional development;
- foster skills for team working needed in the creation of modern systems.

In addition:

- the MSc Computer Science programme is for students who wish to gain a broad understanding of computer science and software development in an industrial context.

- the MSc Computer Science with Artificial Intelligence programme is for students who wish to gain an advanced understanding of artificial intelligence techniques and the applications of artificial intelligence, covering the machine learning and the application of AI to data science.
- the MSc Computer Science with Data Analytics programme is for students who are looking for an in-depth understanding of data analytics, data visualisation and data science topics and the practical applications of these techniques.

4. What you will learn

The intended learning outcomes of the programmes (what students should know, understand and be able to do at the end of the programmes), can be described under the following headings:

- Subject knowledge and understanding
- Subject specific skills
- Key or transferable skills (including employability skills)

Subject knowledge and understanding

Successful students will be able to demonstrate:

LO 1.1 An ability to evaluate the technical, societal and management dimensions of computer systems.

LO 1.2 A knowledge and understanding of advanced aspects of computer systems and their use.

LO 1.3 A combination of theory and practice, with practice being guided by theoretical considerations.

LO 1.4 A strong understanding of the underlying discipline and/or its applications.

LO 1.5 The mastery of the practical methodology of the relevant areas of computing, whether for general application in software development or in specialised applications relating to the storing, processing and communication of information.

LO 1.6 An understanding of, and attention to, the many and varied aspects of quality and security within the framework of the design and development of computer programs and software.

LO 1.7 An understanding of professional, legal, social, cultural and ethical issues related to computing and an awareness of societal and environmental impact.

Subject specific skills

Successful students will be able to show:

LO 2.1 An ability to engage in a peer review process that involves the critical review of papers, software and proposals, coupled with positive advice for improvement and innovation.

LO 2.2 The ability to assess systems (which may include software, devices, people, and so on), to recognise the individual components and to understand their interaction, to improve systems, to replace them and to create them; this includes socio-technical systems such as those relevant to aspects of healthcare and also computing systems used in specialised applications such as bioinformatics, e-science, virtual environments, financial services, and transport.

LO 2.3 Familiarity with codes of ethics and codes of practice specific to the specialism of the degree programme, relevant industrial standards and principles underpinning the development of high integrity systems (for safety, security, trust, privacy, and so on), while keeping in focus the benefits of, approaches to and opportunities offered by innovation.

LO 2.4 Entrepreneurship, which tends to involve acquiring resources to ensure the success of some technically sound endeavour.

LO 2.5 Translational skills which involve the necessary communication between technical and non-technical audiences.

Additionally, successful students of the MSc Computer Science with Artificial Intelligence will be able to show:

LO 2.6 Advanced understanding of artificial intelligence techniques and applications of artificial intelligence.

In addition to the learning outcomes of the MSc Computer Science, successful students of the MSc Computer Science with Data Analytics will be able to develop:

LO 2.7 Advanced understanding of data visualisation and data science topics and their practical applications.

Key or transferable skills (including employability skills)

Successful students will develop:

LO 3.1 An ability to set goals and identify resources for the purpose of learning.

LO 3.2 An ability to critically review the literature, which includes identifying all of the key developments in a particular area of study, critically analysing them and identifying limitations and avenues for further development or explanation.

LO 3.3 An ability to recognise and respond to opportunities for innovation.

LO 3.4 Leadership skills, which tend to be characterised by acquiring a vision (based on sound technical insights) coupled with the ability to encourage others to share in that vision and to ensure that this will not be to their detriment.

Keele Graduate attributes

The Keele Graduate Attributes are the qualities (skills, values and mindsets) which you will have the opportunity to develop during your time at Keele through both the formal curriculum and also through co- and extra-curricular activities (e.g., work experience, and

engagement with the wider University community such as acting as ambassadors, volunteering, peer mentoring, student representation, membership and leadership of clubs and societies). Our Graduate Attributes consist of four themes: **academic expertise, professional skills, personal effectiveness, and social and ethical responsibility.** You will have opportunities to engage actively with the range of attributes throughout your time at Keele: through your academic studies, through self-assessing your own strengths, weaknesses, and development needs, and by setting personal development goals. You will have opportunities to discuss your progress in developing graduate attributes with, for example, Academic Mentors, to prepare for your future career and lives beyond Keele.

5. How is the programme taught?

Students entering the programmes will first take the 15 credit module CSC-40076 Design and Programming. Following completion of this entry module, students are then expected to complete seven 15 credit modules from the module carousel. These carousel modules include two 15 credit modules specifically tailored to student's degree specialisms. Note that students and their peers may not have the same entry point on the carousel and this depends on when the students started the programme. The modules comprising the carousel must be completed before attempting the MSc project component of the course, which comprises a 15 credit module, CSC-40100 Project Literature Review and Problem Formulation, that focuses on the initial literature review and project's problem definition, and a 45 credit module, CSC-40098 MSc Project, dedicated to the writing of the report for the MSc project.

The course is designed for students with a degree in any discipline who wish to gain a Masters level qualification in Computer Science. The School has extensive experience in supporting students with non-Computing backgrounds in Masters level programmes and support on any subject-specific queries will be provided by the online module tutors, with general support also provided by the Student Success Co-ordinator.

The entry module, CSC-40076 Design and Programming, is designed to introduce students with no programming experience to the core concepts required on the programme. Each of the other modules build upon this initial knowledge and are designed to be taken independently of one another and do not require any pre-requisite knowledge beyond that provided in the entry module.

The programmes are delivered online through the Canvas VLE and students will use a variety of learning tools in studying for the chosen course. The principal method for students to acquire knowledge is the use of online lectures in the form of videos. The formal learning opportunities are supplemented by self-study, using both provided material and also that which students research for themselves. Practical self-study will be provided for students to undertake practical tasks related to the theory in the course. On a weekly basis there will be activities and support to ensure satisfactory progress is being made. Each week is treated as a distinct learning chunk, with separate content presentation and deadlines for the completion of learning activities. This means the learning is asynchronous but with sets of weekly deadlines that keep the students on the same study path.

Video lectures and self-study materials are used to introduce concepts. The group activities and practical tasks enable both consolidation of this material and an understanding of the practicalities of its application in a modern business environment. The tutorial activities and practical tasks achieve this aim by having students apply the taught concepts to real world problems. Canvas VLE tools, such as discussion boards and quizzes, will be used to enable students to demonstrate their progress. Chunks of content, with associated activities, are used in order to make the modules accessible and digestible, and to enable students to demonstrate their progress and acquisition of knowledge and skills. Similarly, this provides opportunities for the online module tutors to provide feedback, support and intervention where required.

Students learning on the programmes will require the ability to develop and run programs in languages that may include (but are not limited to) HTML, JavaScript, Java, Matlab, R and Python, used primarily for the design of computer programs and handling of large data sets often encountered in the areas of computing, data analytics and artificial intelligence.

The majority of this software is freely available to download from the Internet and the associated details will be provided on the course. Those software programs that are not available freely online will be provided by the School. Additional software may also be required, such as Integrated Development Environments for compiling, running, and testing code, and will be provided by the University when required.

Students are expected to have access to laptops that meet the required software specifications to engage in study from home and they are expected to have a working internet connection to engage in their studies.

6. Teaching Staff

The modules will be overseen by a Programme Leader with relevant experience and knowledge in the subject area and will be delivered by online module tutors. Student Success Coordinators (SSC) provide regular focus on key areas of the non-academic aspects of the student learning journey ensuring the progression and wellbeing of the student and providing 'signposting' to relevant support functions. The Student Success Coordinator will be the first point of contact for the majority of student queries and will provide proactive contact to support the student in pastoral and the majority of administrative matters. The SSC is not in a position to answer academic questions or give academic guidance. The online module tutor is the first point of contact for academic queries.

More information about some of the Computer Science staff involved in this course is available at http://www.keele.ac.uk/scm/staff/

The University will attempt to minimise changes to our core teaching teams, however, delivery of the programmes depends on having a sufficient number of staff with the relevant expertise to ensure that the programmes are taught to the appropriate academic standard.

Staff turnover, for example where key members of staff leave, fall ill or go on research leave, may result in changes to the programme's content. The University will endeavour to ensure that any impact on students is limited if such changes occur.

7. What is the structure of the programme?

All programmes will be delivered based on a carousel model. This means that programmes have multiple intakes. Upon enrolment a student will select CSC-40076 Design and Programming from Table A as their first module. This module is delivered for each cohort and is available throughout the academic year for new students to select.

On completion of CSC-40076 Design and Programming students normally complete 7 modules (105 credits) from Table B.

On completion of all Modules in table A and B students then take CSC-40086 Research and Consultancy Skills from Table C. This module is delivered for each cohort and is available throughout the academic year.

On completion of all Modules in table A, B and C students then proceed to take CSC-40098 Project Literature & Problem Formulation

from Table D. The Project Literature & Problem Formulation module is delivered for each cohort and is available throughout the academic year.

On completion of all Modules in table A, B , C and D students are then proceed to take CSC-40100 MSc Project from Table E. The MSc Project module is delivered for each cohort and is available throughout the academic year.

Please note if you apply for a study break or leave of absence this will delay your original intended completion date. Modules in Table B are only delivered at specific points within the academic year so please bear in mind you will only be able to study a missed module at the next opportunity.

MSc Computer Science - Module Carousel Table A

	Module Start Date	Module Name	Module Code	Credits
	For all students CSC-40076 Design and Programming is the first module to be taken on joining their programme			
All Years	*Delivered in all periods* - September, October, January, March, April, June	Design and Programming	CSC-40076	15

MSc Computer Science - Module Carousel Table B

	Module Start Date	Module Name	Module Code	Credits
	After completion of CSC-40076 students are able to take the other core programme modules as and when delivered			
2024/25 Year	29 October 2024	User Interaction Design	CSC-40078	15
	07 January 2025	Web Technologies and Security	CSC-40082	15
	04 March 2025	Fundamentals of Computer Science	CSC-40088	15
	29 April 2025	Advanced Programming Techniques	CSC-40074	15
	24 June 2025	Software Engineering and Group Project	CSC-40084	15
2025/26 Year	02 September 2025	Statistical Data Analytics and Databases	CSC-40080	15
	28 October 2025	User Interaction Design	CSC-40078	15
	06 January 2026	Web Technologies and Security	CSC-40082	15
	03 March 2026	Fundamentals of Computer Science	CSC-40088	15
	28 April 2026	Advanced Programming Techniques	CSC-40074	15
	23 June 2026	Software Engineering and Group Project	CSC-40084	15
2026/27 Year	01 September 2026	Statistical Data Analytics and Databases	CSC-40080	15

MSc Computer Science - Module Carousel Table C

	Module Start Date	Module Name	Module Code	Credits
	All students must complete CSC-40086 Research and Consultancy Skills prior to commencing CSC-40098 MSc Project Literature Review and Problem Formulation			
All Years	*Delivered in all periods* - September, October, January, March, April, June	MSc Project Literature Review and Problem Formulation	CSC-40100	15

MSc Computer Science - Module Carousel Table D

	Module Start Date	Module Name	Module Code	Credits
	All students must complete CSC-40098 Project Literature Review and Problem Formulation prior to commencing their Project			
All Years	*Delivered in all periods* - September, October, January, March, April, June	MSc Project Literature Review and Problem Formulation	CSC-40100	15

MSc Computer Science - Module Carousel Table E

	Module Start Date	Module Name	Module Code	Credits
All Years	*Delivered in all periods* - September, October, January, March, April, June	MSc Project	CSC-40098	45

_____

MSc Computer Science with AI - Module Carousel Table A

	Module Start Date	Module Name	Module Code	Credits
	For all students CSC-40076 Design and Programming is the first module to be taken on joining their programme			
All Years	*Delivered in all periods* - September, October, January, March, April, June	Design and Programming	CSC-40076	15

MSc Computer Science with AI - Module Carousel Table B

	Module Start Date	Module Name	Module Code	Credits
	After completion of CSC-40076 students are able to take the other core programme modules as and when delivered			
2024/25 Year	29 October 2024	User Interaction Design	CSC-40078	15
	07 January 2025	Web Technologies and Security	CSC-40082	15
	04 March 2025	Mathematics for AI and Data Science	CSC-40092	15
	29 April 2025	Applications of AI and Machine Learning	CSC-40094	15
	24 June 2025	Software Engineering and Group Project	CSC-40084	15
2025/26 Year	02 September 2025	Statistical Data Analytics and Databases	CSC-40080	15
	28 October 2025	User Interaction Design	CSC-40078	15
	06 January 2026	Web Technologies and Security	CSC-40082	15
	03 March 2026	Mathematics for AI and Data Science	CSC-40092	15
	28 April 2026	Applications of AI and Machine Learning	CSC-40094	15
	23 June 2026	Software Engineering and Group Project	CSC-40084	15
2026/27 Year	01 September 2026	Statistical Data Analytics and Databases	CSC-40080	15

MSc Computer Science with AI - Module Carousel Table C

	Module Start Date	Module Name	Module Code	Credits
	All students must complete CSC-40086 Research and Consultancy Skills prior to commencing CSC-40098 MSc Project Literature Review and Problem Formulation			
All Years	*Delivered in all periods* - September, October, January, March, April, June	Research and Consultancy Skills	CSC-40086	15

MSc Computer Science with AI - Module Carousel Table D

	Module Start Date	Module Name	Module Code	Credits
	All students must complete CSC-40098 Project Literature Review and Problem Formulation prior to commencing their Project			
All Years	*Delivered in all periods* - September, October, January, March, April, June	MSc Project Literature Review and Problem Formulation	CSC-40100	15

MSc Computer Science with AI - Module Carousel Table E

	Module Start Date	Module Name	Module Code	Credits
All Years	*Delivered in all periods* - September, October, January, March, April, June	MSc Project	CSC-40098	45

_____

MSc Computer Science with Data Analytics - Module Carousel Table A

	Module Start Date	Module Name	Module Code	Credits
	For all students CSC-40076 Design and Programming is the first module to be taken on joining their programme			
All Years	*Delivered in all periods* - September, October, January, March, April, June	Design and Programming	CSC-40076	15

MSc Computer Science with Data Analytics - Module Carousel Table B

	Module Start Date	Module Name	Module Code	Credits
	After completion of CSC-40076 students are able to take the other core programme modules as and when delivered			
2024/25 Year	29 October 2024	User Interaction Design	CSC-40078	15
	07 January 2025	Web Technologies and Security	CSC-40082	15
	04 March 2025	Mathematics for AI and Data Science	CSC-40092	15
	29 April 2025	Visualisation for Data Analytics	CSC-40096	15
	24 June 2025	Software Engineering and Group Project	CSC-40084	15
2025/26 Year	02 September 2025	Statistical Data Analytics and Databases	CSC-40080	15
	28 October 2025	User Interaction Design	CSC-40078	15
	06 January 2026	Web Technologies and Security	CSC-40082	15
	03 March 2026	Mathematics for AI and Data Science	CSC-40092	15
	28 April 2026	Visualisation for Data Analytics	CSC-40096	15
	23 June 2026	Software Engineering and Group Project	CSC-40084	15
2026/27 Year	01 September 2026	Statistical Data Analytics and Databases	CSC-40080	15

MSc Computer Science with Data Analytics - Module Carousel Table C

	Module Start Date	Module Name	Module Code	Credits
	All students must complete CSC-40086 Research and Consultancy Skills prior to commencing CSC-40098 MSc Project Literature Review and Problem Formulation			
All Years	*Delivered in all periods* - September, October, January, March, April, June	Research and Consultancy Skills	CSC-40086	15

MSc Computer Science with Data Analytics - Module Carousel Table D

	Module Start Date	Module Name	Module Code	Credits
	All students must complete CSC-40098 Project Literature Review and Problem Formulation prior to commencing their Project			
All Years	*Delivered in all periods* - September, October, January, March, April, June	MSc Project Literature Review and Problem Formulation	CSC-40100	15

MSc Computer Science with Data Analytics - Module Carousel Table E

	Module Start Date	Module Name	Module Code	Credits
All Years	*Delivered in all periods* - September, October, January, March, April, June	MSc Project	CSC-40098	45

Learning Outcomes

The table below sets out what students learn in the programme and the modules in which that learning takes place. Details of how learning outcomes are assessed through these modules can be found in module specifications.

Subject Knowledge and Understanding	
Learning Outcome	**Module in which this is delivered**
An ability to evaluate the technical, societal and management dimensions of computer systems.	All modules
A knowledge and understanding of advanced aspects of computer systems and their use.	MSc Project User Interaction Design Web Technologies and Security Fundamentals of Computer Science
A combination of theory and practice, with practice being guided by theoretical considerations.	User Interaction Design MSc Project MSc Project Literature Review and Problem Formulation Software Engineering with Group Project Advanced programming techniques Fundamentals of Computer Science System Design and Programming Web Technologies and Security User Interaction Design Statistical Data Analytics and Databases
A strong understanding of the underlying discipline and/or its applications	User Interaction Design Fundamentals of Computer Science Software Engineering with Group Project Web Technologies and Security
The mastery of the practical methodology of the relevant area of computing, whether for general application in software development or in specialised applications relating to the storing, processing and communication of information.	User Interaction Design Fundamentals of Computer Science Statistical Data Analytics and Databases Software Engineering with Group Project Web Technologies and Security Advanced Programming Techniques MSc Project MSc Project Literature Review and Problem Formulation
An understanding of, and attention to, the many and varied aspects of quality and security within the framework of the design and development of computer programs and software.	All modules
An understanding of professional, legal, social, cultural and ethical issues related to computing and an awareness of societal and environmental impact.	MSc Project User Interaction Design Research and Consultancy Skills Software Engineering with Group Project

Subject Specific Skills	
Learning Outcome	**Module in which this is delivered**
An ability to engage in a peer review process that involves the critical review of papers, software and proposals, coupled with positive advice for improvement and innovation.	MSc Project MSc Project Literature Review and Problem Formulation Research and Consultancy Skills
The ability to assess systems (which may include software, devices, people, and so on), to recognise the individual components and to understand their interaction, to improve systems, to replace them and to create them; this includes socio-technical systems such as those relevant to aspects of healthcare and also computing systems used in specialised applications such as bioinformatics, e-science, virtual environments, financial services, and transport.	All modules
Familiarity with codes of ethics and codes of practice specific to the specialism of the degree programme, relevant industrial standards and principles underpinning the development of high integrity systems (for safety, security, trust, privacy, and so on), while keeping in focus the benefits of, approaches to and opportunities offered by innovation.	All modules
Entrepreneurship, which tends to involve acquiring resources to ensure the success of some technically sound endeavour.	MSc Project User Interaction Design Research and Consultancy Skills
Translational skills which involve the necessary communication between technical and non-technical audiences.	All modules
Advanced understanding of artificial intelligence techniques and applications of artificial intelligence.	Mathematics for AI and Data Science Applications of AI and Machine Learning
Advanced understanding of data visualisation and data science topics and their practical applications.	Mathematics for AI and Data Science Visualisation for Data Analytics

Key or Transferable Skills (graduate attributes)	
Learning Outcome	**Module in which this is delivered**
Ability to set goals and identify resources for the purpose of learning.	MSc Project MSc Project Literature Review and Problem Formulation Research and Consultancy Skills Software Engineering with Group Project
An ability to critically review the literature, which includes identifying all of the key developments in a particular area of study, critically analysing them and identifying limitations and avenues for further development or explanation.	MSc Project MSc Project Literature Review and Problem Formulation Research and Consultancy Skills
An ability to recognise and respond to opportunities for innovation.	MSc Project User Interaction Design
Leadership skills, which tend to be characterised by acquiring a vision (based on sound technical insights) coupled with the ability to encourage others to share in that vision and to ensure that this will not be to their detriment.	MSc Project Software Engineering with Group Project

8. Final and intermediate awards

MSc Computer Science **MSc Computer Science with Artificial Intelligence** **MSc Computer Science with Data Analytics**	180 credits 180 credits 180 credits	You will require 180 credits at Level 7. This must include credits in the following modules: CSC-40088 Fundamentals of Computer Science; CSC-40074 Advanced Programming Techniques; CSC-40100 MSc Project Literature Review and Problem Formulation; CSC-40098 MSc Project. The award of the Master's Degree may be at merit or distinction level based on the marks achieved. You will require 180 credits at Level 7. This must include credits in the following modules: CSC-40092 Mathematics for AI and Data Science; CSC-40094 Applications of AI and Machine Learning; CSC-40100 MSc Project Literature Review and Problem Formulation; CSC-40098 MSc Project. The award of the Master's Degree may be at merit or distinction level based on the marks achieved. You will require 180 credits at Level 7. This must include credits in the following modules: CSC-40092 Mathematics for AI and Data Science; CSC-40096 Visualisation for Data Analytics; CSC-40098 MSc Project; CSC-40100 MSc Project Literature Review and Problem Formulation. The award of the Master's Degree may be at merit or distinction level based on the marks achieved.
Postgraduate Diploma in Computer Science **Postgraduate Diploma in Computer Science with Artificial Intelligence** **Postgraduate Diploma in Computer Science with Data Analytics**	120 credits 120 credits 120 credits	You will require 120 credits at Level 7. This must include credits in the following modules: CSC-40088 Fundamentals of Computer Science; CSC-40074 Advanced Programming Techniques. You will require 120 credits at Level 7. This must include credits in the following modules: CSC-40092 Mathematics for AI and Data Science; CSC-40094 Applications of AI and Machine Learning. You will require 120 credits at Level 7. This must include credits in the following modules: CSC-40092 Mathematics for AI and Data Science; CSC-40096 Visualisation for Data Analytics.
Postgraduate Certificate in Computer Science	60 credits	You will require 60 credits at Level 7.

9. How is the Programme Assessed?

The wide variety of assessment methods used on these programmes at Keele reflects the broad range of knowledge and skills that are developed as you progress through the programme. Teaching staff pay particular attention to specifying clear assessment criteria and providing timely, regular and constructive feedback that helps to clarify things you did not understand and helps you to improve your performance.

The function of the assessments on the programmes is to test students' achievement of the learning outcomes of the MSc Computer Science, MSc Computer Science with Artificial Intelligence, and MSc Computer Science with Data Analytics Programmes. The goal is to make best use of assessment practices that similarly meet the needs of students in this context.

All assessment will be online: there is no need to attend Keele's campus for assessments. Possible assessments that students will engage in include online quizzes/tests, assessments, case studies, programming and application design tasks, written reports and essays, reflective reports and surveys, online projects and presentations. Online quizzes and class tests are taken during the course of a module and are intended to assess a student's current understanding and subject knowledge in a structured and focused manner. Assessments normally consists of regular short assignments designed to assess, in more depth than online quizzes and tests, a student's knowledge and understanding of the course material. Some of these assignments may be computer based; others take the form of individual reports, essays or group projects.

The MSc project module is assessed by dissertation. Dissertations are formal reports of work carried out by students undertaking a project. Projects involve the integration and application of theoretical knowledge and problem-solving skills to an identified programming need and/or research problem within the discipline. Dissertations describe product and process in extended detail.

Marks are awarded for all summative assessments designed to assess the student's achievement of learning outcomes. Students are also assessed formatively (no marks awarded) to enable them to monitor their own progress and reflect on their learning. Formative assessment encourages students to take ownership of their learning and simultaneously provides academic staff with information enabling them to identify any specific learning needs. Feedback is also provided on regular summative assessments throughout the Programme.

10. Accreditation

These programmes do not currently have accreditation from an external body.

11. University Regulations

The University Regulations form the framework for learning, teaching and assessment and other aspects of the student experience. Further information about the University Regulations can be found at: http://www.keele.ac.uk/student-agreement/

If this programme has any exemptions, variations or additions to the University Regulations these will be detailed in an Annex at the end of this document titled 'Programme-specific regulations'.

12. What are the typical admission requirements for the Programme?

See the relevant course page on the website for the admission requirements relevant to this programme: https://www.keele.ac.uk/study/

13. How are students supported on the programme?

Students with a diagnosed disability will be entitled to a range of reasonable adjustments. For more details please see: https://www.keele.ac.uk/students/lifeoutsideofstudy/disabilityanddyslexiasupport/supportforcurrentstudents/reasonableadjustments/

Students will have access to Keele University's IT Services via https://www.keele.ac.uk/it/ to support with systems used at the university. An induction module is in development to support students with online learning resources which will dovetail with a wider university project on induction.

In order to help support students to engage in study through their programme, all students on the programmes are provided with a named Student Success Co-ordinator (SSC). The Student Success Coordinators (SSCs) will work to provide and support:

- motivation and encouragement
- enrolment and preparing for modules
- frequent check ins
- high risk contact strategies and reminders of key dates
- triage to direct students with academic questions of issues requiring contact with other university departments.

The SSC will be a student's first point of contact and students can expect to be in regular contact with their SSC by phone or email.

The SSC cannot advise on academic queries but can advise students on contacting the module tutor on specific queries or will suggest to post queries on a message board if it is common, enabling module leaders and fellow students to engage in discussions to help to address any matters arising. If required, they will also assist students in directing them to relevant services within the University.

Each student will be provided academic tutoring by the Online Tutor for each module and the Online Tutor will be the key contact for all academic matters within the module. Online Tutors will be able to answer queries raised of a subject specific nature on all modules taught.

Online Tutors, leading modules on the programmes, will work directly with students on a weekly basis, and will provide information on activities and summarise weekly activities. They will regularly monitor discussions, feedback and assist in the completion of formative and summative assessments. Usually, two to three times in the module they will provide feedback and grades on assessments.

The Programme Leader will monitor the running of the programme as a whole, which includes ensuring that personal and academic issues raised by students and module leaders/tutors are addressed. Students should contact their Programme Leader in the event they are unable to resolve issues raised with their SSC and Online Tutors/module leaders.

14. Learning Resources

- The relevant Course Handbook will provide students with key information and guidance on structure, content and assessment.
- Students may contact the online tutors, the Programme Director and the School Office via e-mail at all times on weekdays and may expect a response to their communications within seven working days.
- Students will have access to material in the courses' on-line learning resources.
- Students will have access to Keele's Library Information Services on campus and via the Internet.

15. Additional Costs

As to be expected there will be additional costs for inter-library loans and potential overdue library fines, print and graduation. We do not anticipate any further costs for these programmes.

16. Quality management and enhancement

The quality and standards of learning in this programme are subject to a continuous process of monitoring, review and enhancement.

- The School Education Committee is responsible for reviewing and monitoring quality management and enhancement procedures and activities across the School.
- Individual modules and the programme as a whole are reviewed and enhanced every year in the annual programme review which takes place at the end of the academic year.
- The programmes are run in accordance with the University's Quality Assurance procedures and are subject to periodic reviews under the Revalidation process.

Student evaluation of, and feedback on, the quality of learning on every module takes place every year using a variety of different methods:

- The results of student evaluations of all modules are reported to module leaders and reviewed by the Programme Committee as part of annual programme review.
- Findings related to the programme from the annual Postgraduate Taught Experience Survey (PTES), and from regular surveys of the student experience conducted by the University, are subjected to careful analysis and a planned response at programme and School level.
- Feedback received from representatives of students on the programme is considered and acted on at regular meetings of the Student Staff Voice Committee.

The University appoints senior members of academic staff from other universities to act as external examiners on all programmes. They are responsible for:

- Approving examination questions
- Confirming all marks which contribute to a student's degree
- Reviewing and giving advice on the structure and content of the programme and assessment procedures

Information about current external examiner(s) can be found here: http://www.keele.ac.uk/qa/externalexaminers/currentexternalexaminers/

17. The principles of programme design

The programme described in this document has been drawn up with reference to, and in accordance with the guidance set out in, the following documents:

a. UK Quality Code for Higher Education, Quality Assurance Agency for Higher Education: http://www.qaa.ac.uk/quality-code
b. QAA Subject Benchmark Statement for Master's Degrees in Computing, Quality Assurance Agency for Higher Education, 2019. https://www.qaa.ac.uk/docs/qaa/subject-benchmark-statements/subject-benchmark-statement-computing-(masters).pdf
c. Keele University Regulations and Guidance for Students and Staff: http://www.keele.ac.uk/regulations

18. Annex - Programme-specific regulations

Programme Regulations: Computer Science, Computer Science with Artificial Intelligence, Computer Science with Data Analytics

Final Award and Award Titles	MSc Computer Science MSc Computer Science with Artificial Intelligence MSc Computer Science with Data Analytics
Intermediate Award(s)	Postgraduate Diploma in Computer Science Postgraduate Diploma in Computer Science with Data Analytics Postgraduate Diploma in Computer Science with Artificial Intelligence Postgraduate Certificate in Computer Science
Last modified	July 2021
Programme Specification	https://www.keele.ac.uk/qa/programmespecifications

The University's Academic Regulations which can be found on the Keele University website (https://www.keele.ac.uk/regulations/)[1] apply to and regulate the programme, other than in instances where the specific programme regulations listed below over-ride them. These programme regulations list:

- *Exemptions* which are characterised by the omission of the relevant regulation.
- *Variations* which are characterised by the replacement of part of the regulation with alternative wording.
- *Additional Requirements* which set out what additional rules that apply to students in relation to this programme.

The following **exemptions, variations** and **additional requirements** to the University regulations have been checked by Academic Services and have been approved by the Faculty Education Committee.

A) EXEMPTIONS

The clause(s) listed below describe where an exemption from the University's Academic Regulations exists:

For the whole duration of their studies, students on this Programme are exempt from the following regulations:

Exemption 1: Academic Warnings

Students on this programme are not covered by the University's Academic Warnings process.

B) VARIATIONS

The clause(s) listed below describe where a variation from the University's Academic Regulations exists:

Variation 1: This programme varies from Regulation C7.11

Progression rules for this programme:

There are two formal progression points in the programme. Firstly, students must successfully complete the entry module, CSC-40076 Design and Programming, before progressing to the taught module carousel. Secondly, students may only embark on the project modules with a maximum of three taught module marks (up to 45 credits) outstanding and with assessment attempts remaining.

Variation 2: from Regulation C.7.5.4
The programme includes a dissertation stage consisting of a 45-credit dissertation module.

Variation 3: from D1.12.1.5
You will be required to take one or more study break if the School advises you that you carry outstanding assessment attempts for previous modules to the equivalent of 45 credits or more. If you have already embarked on a further module, you may be placed on a compulsory study break to attempt your outstanding assessments before you are allowed to resume your studies at the next opportunity. Any compulsory study break will count towards your total allocation of study break time available on the programme. You will be allowed to resume your studies after your study break once you carry no more than 15 credits worth of outstanding assessment.

Variation 4: from Deviation D1
The module 'CSC-40076 Design and Programming' normally has to be passed before the next module can be attempted. If you are

informed that you have to be assessed or reassessed in this module while you are already enrolled on a subsequent module, you are required to complete the subsequent module and attempt the assessment for CSC-40076 Design and Programming either alongside that module or take a study break to undertake assessment and pass the CSC-40076 Design and Programming module. Any study break will count towards your total allocation of study break time available on the programme.

Additional Requirements

The programme requirements listed below are in addition to the University's Academic Regulations:

Additional requirement 1: Study Breaks
Part-time students: You are entitled to take a maximum of six breaks in your study between the modules you enrol on. A study break is an absence for the duration of one module. You cannot take more than two consecutive study breaks in succession. Longer periods of absence require a formal leave of absence.

_____

[1] References to University Regulations in this document apply to the content of the University's Regulatory Framework as set out on the University website here https://www.keele.ac.uk/regulations/.

Version History

This document

Date Approved: 19 June 2025

Previous documents

Version No	Year	Owner	Date Approved	Summary of and rationale for changes
1.1	2024/25	THEO KYRIACOU	26 July 2024	Amendments to module carousel to add latest period
1	2024/25	THEO KYRIACOU	10 June 2024	
1	2023/24	THEO KYRIACOU	15 May 2023	
1	2022/23	THEO KYRIACOU	22 August 2022	
1.1	2021/22	MARK TURNER	22 August 2022	Amended the normal length of the programme from '1.5 to 2 years' to '2 years'
1	2021/22	MARK TURNER	27 July 2021	Variations 3 and 4 relating to study breaks and module CSC-40076 Design and Programming have been added to the Annex: Programme Specific Regulations.
1	2020/21	MARK TURNER	02 October 2020	