Programme Specification: Post Graduate Taught

For Academic Year 2025/26

1. Course Summary

Names of programme and award title(s)	MSc Artificial Intelligence and Data Science MSc Artificial Intelligence and Data Science with Placement (see Annex for details)
Award type	Taught Masters
Mode of study	Full-time
Framework of Higher Education Qualification (FHEQ) level of final award	Level 7
Normal length of the programme	1 year Entry points: September or January 12 months: MSc Artificial Intelligence and Data Science 18-24 months: MSc Artificial Intelligence and Data Science with Placement
Maximum period of registration	The normal length as specified above plus 3 years
Location of study	Keele Campus
Accreditation (if applicable)	N/A
Regulator	Office for Students (OfS)
Tuition Fees	**UK students**: Fee for 2025/26 is £11,400 **International students**: Fee for 2025/26 is £17,700 The fee for the placement is calculated at 20% of the regulated Home undergraduate tuition fee for that year of study.

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.*

2. Overview of the Programme

The demand for graduates skilled in AI and Data Science has never been more pressing. Our MSc in AI and Data Science will equip you with the skills and expertise needed to go into careers such as applied AI developer, data analyst, data scientist, machine learning engineer and data mining and analysis engineer - all roles which are in increased demand across the World. Keele was one of the first Universities in the UK to start teaching computer science, over 50 years ago in 1972, and we have a strong tradition in supporting students from other disciplines into computing related careers. We also conduct internationally significant and impactful research in AI and Data Science, including areas such as machine learning, responsible AI and evolutionary computation. We have combined this expertise with the views of employers and students to create this course which provides distinctive and inclusive teaching for students from a wide variety of non-computing backgrounds. This course will enable you to explore a balance of key professional issues and standards as well as develop advanced knowledge of the underlying concepts and techniques of modern AI and data science. On graduation you will be ready to meet the needs and demands of an increasingly digitised world. The course covers topics such as:

- programming and software engineering;
- mathematics including calculus, linear algebra, statistics and probability;
- ethical, governance and professional issues;
- data management, databases and cloud technologies;
- advanced applications of AI and machine learning.

The course also provides you with the opportunity to apply skills and techniques to real world authentic problems, contextualise your learning to your own areas of interest and develop professionalism, team working and research skills.

We place a strong emphasis on employability in our programmes and therefore you will have access to 4 different types of industrial experience:

1. Industry Guest Lectures and Seminars routinely delivered as part of the course and/or within the School.
2. Industry related projects as part of the *Advanced Research and Development Project* module.
3. The *Industrial Placement Project* module (8-12 week placements with a relevant company)
4. The "*with Placement*" year (6-12 month placements)

Graduates from this programme should be able to undertake both development and management roles in AI and data science, in a wide range of industries and disciplines. Conscious of this, the key skills and knowledge covered in the course have been informed by our collaborations with a diverse set of national and international employers, as well as with our link to the Alan Turing Institute, the UK's national institute for data science and AI.

3. Aims of the programme

The broad aims of the programme are to enable you to:

- develop fundamental skills and competence in areas such as mathematics and python programming that underpin AI and data science;
- appraise and implement data storage and management solutions on a variety of platforms;
- evaluate data requirements, and apply data selection, data curation, data quality assurance and data investigation and engineering techniques;
- select data processing techniques to produce data sets for study and perform investigations using techniques including machine learning to reveal new insights;
- visualise and present data and investigation results to a range of stakeholders;
- assess tools and technologies in relation to current industry practice such as:
    - Version control systems (e.g., Git)
    - Containerization (e.g., Docker, Kubernetes)
    - Cloud Platforms (e.g., AWS, Google Cloud, Azure)
    - Machine Learning, Neural Networks, Deep Learning, Natural Language Processing
    - Frameworks such as TensorFlow, PyTorch and Scikit-Learn
    - Generative Models e.g. ChatGPT
- evaluate key ethical and governance frameworks and their impact on current and future AI and data science;
- develop research and scholarship skills to undertake independent research and to develop applications of AI and data science techniques in a range of subject contexts;
- develop student-centred independent active learning and curiosity.

4. What you will learn

The intended learning outcomes of the programme (what students should know, understand and be able to do at the end of the programme), 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

By the end of the programme students will be able to:

- demonstrate how key algorithms and models are applied in developing analytical solutions and how analytical solutions can deliver benefits to organisations;
- apply the principles of data driven analysis, including the approach, the selected data, the fitted models and evaluations used to solve data problems;
- evaluate the properties of different data storage solutions, and the transmission, processing and analytics of data. Including the platform choices available for designing and implementing solutions for data storage, processing and analytics in different data scenarios;
- apply advanced concepts in AI and data science, with applications that are thoughtfully guided by theoretical principles;
- apply the concepts, tools and techniques for data visualisation, including how this provides a qualitative understanding of the information on which decisions can be based;
- evaluate codes of ethics and codes of practice, industry standards, and principles for safety and privacy, alongside the professional, legal, and ethical issues in AI and data science¿ including societal impacts, innovation benefits, and UK information governance and data protection standards

Subject specific skills

By the end of the programme students will be able to:

- Identify and select the data that needs to be collected and transitioned from a range of data systems; acquire, manage and process complex data sets, including large-scale and real-time data;
- undertake analytical investigations of data to understand the nature, utility and quality of data, and developing data quality rule sets and guidelines for database designers;
- formulate analysis questions and hypotheses which are answerable given the data available and come to statistically sound conclusions;
- conduct complex investigations, employing a range of analytical software, statistical modelling & machine learning

techniques to make data driven decisions solve problems;
- document and describe the data architecture and structures using appropriate data modelling tools, and select appropriate methods to present data and results that support human understanding of complex data sets;

Key or transferable skills (including employability skills)

By the end of the programme students will be able to:

- problem-solve and apply computational thinking;
- formulate goals and identify resources and become a self-directed learner;
- maintain a high level of technological literacy, staying current with emerging technologies and trends;
- 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
- think creatively and analytically;
- communicate to a range of different audiences;
- demonstrate resilience, flexibility, agility and self-management;
- work within a team using empathy and active listening;
- recognise and respond to opportunities for enterprise and innovation;
- demonstrate an increased awareness of sustainability: recognising factors in environmental and societal contexts relating to the opportunities and challenges created by computing systems across a range of human activities.

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?

You will use a variety of learning tools in studying for this course informed by our strong tradition in supporting students from other disciplines into computing related careers. The principal methods for you to acquire knowledge are the use of interactive lectures and hands-on practical sessions. These are supplemented by smaller group tutorials dependent on the topics being covered in the module. Self-study using material provided by us via our Virtual Learning Environment and that which you research for yourself will supplement the formal learning opportunities.

Interactive lectures and self-study materials are often used to introduce concepts. The smaller group tutorials and practicals enable both consolidation of this material and an understanding of the practicalities of its application in industry and research. The tutorials and practicals achieve this aim by you having to apply the taught concepts to real world problems and data sets, in a supportive environment where we can assess individual progress and offer you 1-to-1 support.

Apart from these formal activities, you are also provided with regular opportunities to talk through particular areas of difficulty, and any special learning needs you may have, with your Academic Mentors or module lecturers on a one-to-one basis.

All first and second semester 15-credit taught modules, will be delivered in block mode, i.e. each of these modules will normally be delivered over a period of six consecutive weeks. In any week at most two block mode modules will be scheduled for delivery. This block structure is specifically designed in the first semester to support students from non-computing backgrounds with essentials they need in programming and maths. This means that we don't expect students to have done any prior courses, reading etc. in those areas.

6. Teaching Staff

Information about the Computer Science teaching and research staff is available at http://www.keele.ac.uk/scm/staff/

You can find details about our AI and Data Science related research and staff here:
https://www.keele.ac.uk/research/ourresearch/computerscienceandmathematics/computerscienceresearch/artificialintelligence/

The University will attempt to minimise changes to our core teaching teams, however, delivery of the programme depends on having a sufficient number of staff with the relevant expertise to ensure that the programme is 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?

For September starts, the academic year runs from September to September and is divided into three semesters. The number of weeks of teaching will vary from course to course, but you can generally expect to attend scheduled teaching sessions between the end of September and mid-December, and from mid-January to the end of April. The *Industrial Placement Project* or *Advanced Research and Development Project* option modules will then run from June to the end of

August.

For January starts, the academic year runs from January to January and is also divided into three semesters. The number of weeks of teaching will vary from course to course, but you can generally expect to attend scheduled teaching sessions between the end of January to the end of April, and from June to the end of July. After the *Industrial Placement Project* or *Advanced Research and Development Project* option modules which run from August to October, you will then return in November to mid-December to complete the taught modules.

Taught modules run in 6-week blocks, with weeks 1-6 of a Semester being Block A, and weeks 7-12, Block B.

Our degree courses are organised into modules. Each module is usually a self- contained unit of study and each is usually assessed separately with the award of credits on the basis of 1 credit = 10 hours of student effort. An outline of the structure of the programme is provided in the tables below.

There are two types of module delivered as part of your programme. They are:

- Compulsory modules - a module that you are required to study on this course;
- Optional modules - these allow you some limited choice of what to study from a list of modules.

A summary of the credit requirements per year is as follows.

Year	Compulsory	Optional
Level 7	120	60

September intake

Compulsory modules	Module Code	Credits	Period
Mathematical Techniques for Computational Sciences	CSC-44100	15	1A
Foundations of Programming and Software Engineering	CSC-44102	15	1A
Ethics, Governance, and Professionalism in AI and Data Science	CSC-44104	30	1B
Data Management and Cloud Technologies	CSC-44110	30	2A
Advanced Applications of AI and Machine Learning	CSC-44112	30	2B

Taught modules run in 6-week blocks, with weeks 1-6 of a Semester being Block A, and weeks 7-12, Block B. For example, Period 1A in the table above means that that module runs in Semester 1 (starting in September) and in Weeks 1-6.

Optional modules	Module Code	Credits	Period
Industrial Placement Project	CSC-44118	60	3
Advanced Research and Development Project	CSC-44120	60	3

January intake

January starting students complete the modules in the following periods:

Compulsory modules	Module Code	Credits	Period
Mathematical Techniques for Computational Sciences	CSC-44100	15	2A
Foundations of Programming and Software Engineering	CSC-44102	15	2A
Advanced Applications of AI and Machine Learning	CSC-44112	30	2B
Data Management and Cloud Technologies	CSC-44110	30	3A
Ethics, Governance, and Professionalism in AI and Data Science	CSC-44102	30	1B

Optional modules	Module Code	Credits	Period
Industrial Placement Project	CSC-44118	60	3B-1A
Advanced Research and Development Project	CSC-44120	60	3B-1A

Taught modules run in 6-week blocks, with weeks 1-6 of a Semester being Block A, and weeks 7-12, Block B. For example, Period 2A in the table above means that that module runs in Semester 2 (starting in January) and in Weeks 1-6.

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.

Level 7

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**
demonstrate how key algorithms and models are applied in developing analytical solutions and how analytical solutions can deliver benefits to organisations;	Mathematical Techniques for Computational Sciences Foundations of Programming and Software Engineering Data Management and Cloud Technologies Advanced Applications of AI and Machine Learning Industrial Placement Project Advanced Research and Development Project
apply the principles of data driven analysis, including the approach, the selected data, the fitted models and evaluations used to solve data problems;	Mathematical Techniques for Computational Sciences Data Management and Cloud Technologies Advanced Applications of AI and Machine Learning Industrial Placement Project Advanced Research and Development Project
evaluate the properties of different data storage solutions, and the transmission, processing and analytics of data. Including the platform choices available for designing and implementing solutions for data storage, processing and analytics in different data scenarios;	Data Management and Cloud Technologies Advanced Applications of AI and Machine Learning
apply advanced concepts in AI and data science, with applications that are thoughtfully guided by theoretical principles;	Ethics, Governance, and Professionalism in AI and Data Science Data Management and Cloud Technologies Advanced Applications of AI and Machine Learning Advanced Research and Development Project
apply the concepts, tools and techniques for data visualisation, including how this provides a qualitative understanding of the information on which decisions can be based;	Advanced Applications of AI and Machine Learning
evaluate codes of ethics and codes of practice, industry standards, and principles for safety and privacy, alongside the professional, legal, and ethical issues in AI and data science¿including societal impacts, innovation benefits, and UK information governance and data protection standards	Ethics, Governance, and Professionalism in AI and Data Science Industrial Placement Project Advanced Research and Development Project

Subject Specific Skills	
Learning Outcome	**Module in which this is delivered**
Identify and select the data that needs to be collected and transitioned from a range of data systems; acquire, manage and process complex data sets, including large-scale and real-time data;	Data Management and Cloud Technologies
undertake analytical investigations of data to understand the nature, utility and quality of data, and developing data quality rule sets and guidelines for database designers;	Data Management and Cloud Technologies Advanced Applications of AI and Machine Learning Industrial Placement Project Advanced Research and Development Project
formulate analysis questions and hypotheses which are answerable given the data available and come to statistically sound conclusions;	Mathematical Techniques for Computational Sciences Advanced Applications of AI and Machine Learning Industrial Placement Project Advanced Research and Development Project
conduct complex investigations, employing a range of analytical software, statistical modelling & machine learning techniques to make data driven decisions solve problems;	Mathematical Techniques for Computational Sciences Advanced Applications of AI and Machine Learning Industrial Placement Project Advanced Research and Development Project
document and describe the data architecture and structures using appropriate data modelling tools, and select appropriate methods to present data and results that support human understanding of complex data sets;	Mathematical Techniques for Computational Sciences Data Management and Cloud Technologies Advanced Applications of AI and Machine Learning Industrial Placement Project Advanced Research and Development Project

Key or Transferable Skills (graduate attributes)	
Learning Outcome	**Module in which this is delivered**
problem-solve and apply computational thinking;	Mathematical Techniques for Computational Sciences Foundations of Programming and Software Engineering Data Management and Cloud Technologies Advanced Applications of AI and Machine Learning Industrial Placement Project Advanced Research and Development Project
formulate goals and identify resources and become a self-directed learner;	Ethics, Governance, and Professionalism in AI and Data Science Advanced Applications of AI and Machine Learning Industrial Placement Project Advanced Research and Development Project
maintain a high level of technological literacy, staying current with emerging technologies and trends;	Foundations of Programming and Software Engineering Ethics, Governance, and Professionalism in AI and Data Science Data Management and Cloud Technologies Advanced Applications of AI and Machine Learning Industrial Placement Project Advanced Research and Development Project
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	Ethics, Governance, and Professionalism in AI and Data Science Advanced Applications of AI and Machine Learning Industrial Placement Project Advanced Research and Development Project
think creatively and analytically;	Mathematical Techniques for Computational Sciences Foundations of Programming and Software Engineering Ethics, Governance, and Professionalism in AI and Data Science Data Management and Cloud Technologies Advanced Applications of AI and Machine Learning Industrial Placement Project Advanced Research and Development Project
communicate to a range of different audiences;	Ethics, Governance, and Professionalism in AI and Data Science Data Management and Cloud Technologies Advanced Applications of AI and Machine Learning Industrial Placement Project Advanced Research and Development Project
demonstrate resilience, flexibility, agility and self-management;	Mathematical Techniques for Computational Sciences Foundations of Programming and Software Engineering Ethics, Governance, and Professionalism in AI and Data Science Data Management and Cloud Technologies Advanced Applications of AI and Machine Learning Industrial Placement Project Advanced Research and Development Project
work within a team using empathy and active listening;	Ethics, Governance, and Professionalism in AI and Data Science Industrial Placement Project
recognise and respond to opportunities for enterprise and innovation;	Ethics, Governance, and Professionalism in AI and Data Science Advanced Applications of AI and Machine Learning Industrial Placement Project Advanced Research and Development Project
demonstrate an increased awareness of sustainability: recognising factors in environmental and societal contexts relating to the opportunities and challenges created by computing systems across a range of human activities	Ethics, Governance, and Professionalism in AI and Data Science Advanced Applications of AI and Machine Learning Industrial Placement Project Advanced Research and Development Project

8. Final and intermediate awards

Master's Degree **MSc Artificial Intelligence and Data Science**	180 credits	You will require at least 150 credits at Level 7
Postgraduate Diploma	120 credits	You will require at least 90 credits at Level 7
Postgraduate Certificate	60 credits	You will require at least 40 credits at Level 7

Placement option: in addition to the above students must pass a non-credit bearing module covering the placement in order to graduate with a named degree including the 'with Placement' wording.

9. How is the Programme Assessed?

The wide variety of assessment methods used on this programme at Keele reflects the broad range of knowledge and skills that are developed as you progress through the degree 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 following list is representative of the variety of assessment methods used on your programme:

- Assignments and Reports: applied tasks related to authentic scenarios.
- Class tests: these are taken during the course of a module, usually in a lecture slot. They are intended to assess a student's current understanding and subject knowledge in that module in a structured and focused manner. Some taught compulsory modules may have class tests as part of the assessment profile.
- Dissertations: 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.
- Group assignments: students work within small groups on a scenario and present their work in various forms such as presentations and reports.
- Portfolios: a collection of tasks, usually weekly, that contribute to a final portfolio submission.
- Presentations and Posters: assess a student's ability to communicate their knowledge and understanding, both visually and orally, to both general and academic audiences.
- Problem sheets: weekly tasks that relate to that week's materials, often completed online.
- Reflective diaries: students use a reflective learning model to reflect on their learning experience, describing what they have learnt and contributed, identifying their strengths and identifying next steps for their learning.
- Websites: either the creation of an actual website or a link to an online code repository that contains the solution to a set problem.

Marks are awarded for summative assessments designed to assess your achievement of learning outcomes. You will also be assessed formatively to enable you to monitor your own progress and to assist staff in identifying and addressing any specific learning needs. Feedback, including guidance on how you can improve the quality of your work, is also provided on all summative assessments within three working weeks of submission, unless there are compelling circumstances that make this impossible, and more informally in the course of tutorial and seminar discussions.

10. Accreditation

This programme does not have accreditation from an external body but industry certification opportunities will be made available as and when appropriate.

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/

Recognition of Prior Learning (RPL) is considered on a case-by-case basis and those interested should contact the Programme Director. The University's guidelines on this can be found here: https://www.keele.ac.uk/qa/programmesandmodules/recognitionofpriorlearning/

13. How are students supported on the programme?

Support for student learning on the Programme is provided in the following ways:

- Module leaders and demonstrators are responsible for providing learning support on the individual modules. They also give feedback on all summative and formative assessment, from individual feedback on coursework to more general

feedback on class tests.
- The members of academic staff in Computer Science operate an open-door policy whereby lecturers are happy to see and advise students at any reasonable time or by mutually convenient appointment. How to book an appointment is published at the start of the year for each member of staff.
- Every student enrolled on the Programme will be allocated an Academic Mentor who is responsible for reviewing and advising on the student's academic progress throughout their time on the Programme. Students should approach their Academic Mentor, in the first instance, if they are experiencing issues with any part of the Programme. Academic Mentors also act as a first point of contact on any non-academic issues that may be affecting their learning and can also refer students to a range of specialist health, welfare and financial services coordinated by Student Services.
- Weekly virtual helpdesks are run in term time to support all students via MS Teams with the content from all modules.

14. Learning Resources

- There are specialist teaching laboratories with equivalent configuration of machines in the School. All the systems available have software appropriate to the modules included in this programme, in addition to those provided as standard by the University. You can also access the lab machines remotely and details about how to do this are published on the KLE noticeboard.
- The relevant Programme Handbook will provide you with key information and guidance on structure, content and assessment.
- You may contact the Course Director, or their substitute, via e-mail at all times and you may expect a response to your communications within 2 working days.
- You will have access to the Course Director and module lecturers by appointment.
- You will have access to material in the programme's online learning resources.
- You will have access to Keele's Library Information Services on campus and via the Internet.

15. Other Learning Opportunities

Placement

A summary of the "with Placement" option, which is a potential option for students after completion of year 1, is provided in the Annex.

16. Additional Costs

As to be expected there will be additional costs for inter-library loans and potential overdue library fines, print and graduation.

Students taking the MSc AI and Data Science with Placement programme will be responsible for organising their own placement with the support of the University. This allows students to choose when and where to carry out their placement, taking into consideration the potential living and travel expenses incurred and the effect on other times available to earn money. Students are encouraged to consider the potential costs incurred in carrying out the professional placements at the time of setting them up. Further guidance and support on these considerations is available from the University. For international students transferring onto the MSc AI and Data Science with Placement programme there may be implications and additional costs incurred by this transfer relating to applying for a new student Visa from outside of the UK before the transfer takes place.

17. 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/

18. 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, as well as input from our Employer Steering Group:

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: Computing https://www.qaa.ac.uk/the-quality-code/subject-benchmark-statements/computing

c. Level 7 Digital and technology solutions specialist (integrated degree) Apprenticeship Standard (Data Analytics Specialist): https://www.instituteforapprenticeships.org/apprenticeship-standards/digital-and-technology-solutions-specialist-integrated-degree/

d. Keele University Regulations and Guidance for Students and Staff: http://www.keele.ac.uk/regulations

19. Annex - PGT Placement

MSc Artificial Intelligence and Data Science with Placement

PGT Placement Summary
Students can apply directly for the 'with Placement' degree programme, or transfer onto the 'with Placement' degree programme by the end of May or the end of October each academic year for students starting their studies in September or January, respectively. International students can apply directly for the 'with Placement' degree programme. However, if they wish to transfer onto this programme while studying, they should discuss this with Immigration Compliance and Advice (ICA) and their Programme Director. If the transfer request can be approved in line with UK Visas and Immigration (UKVI) rules, students should be aware that a visa extension would be required. Students accepted onto the 'with Placement' programme will complete an extra 6 - 12 months of study (the placement), depending on the duration of their placement, with a relevant placement provider after they have completed the taught component of their programme. Admission to the Postgraduate Placement module is dependent on students i) achieving minimum academic standards and, ii) securing a placement via a competitive, employer-led selection process. The University does not guarantee placements for students who have registered for the 'with Placement' programme or for those who transfer on to the programme. All students will be provided with a detailed timeline, including deadlines, of the date by which their placement would need to be secured. Students who successfully pass 180 credits plus the non-credit bearing Postgraduate Placement module will be awarded the degree title of 'XXXX with Placement'. Students who are unable to secure a placement, fail to satisfactorily complete their placement, or who fail the non-credit bearing Postgraduate Placement module will revert to the standard degree title of the one-year master's programme. Failure of the placement will be recorded on the student's final transcript. Study at Level 7 will be as per the main body of this document. The additional detail contained in this annex will pertain solely to students registered for the 'with Placement' option.
Placement Programme Aims
In addition to the programme aims specified in the main body of this document, the with Placement programme aims to provide students with: 1. In-depth experience of a relevant workplace and the variety of ways in which their skills can be used in the world outside the university. 2. The opportunity to further develop their employability through skills development and reflection, enhanced organisational and sector knowledge, and networking and interpersonal communication.
Entry Requirements for the Postgraduate Placement Module

Admission to the Postgraduate Placement module is dependent on students i) achieving minimum academic standards and, ii) securing a placement via a competitive, employer-led selection process including successful application and interview. Therefore, the University cannot guarantee placements for students who have registered for the 'with placement' programme.

To be eligible to progress onto placement, students will need to have:

- Passed all of their first Semester modules (i.e., obtained an average mark of at least 50%). Where no Semester 1 marks have been awarded, performance on individual assessments in these modules will be considered.
- Completed an online Health and Safety training session prior to commencing their placement and will be required to satisfy the Health and Safety regulations of the company or organisation at which they are based.
- Secured a relevant placement via a competitive, employer-led selection process including successful application and interview.

Progression onto the Postgraduate Placement module is then conditional on passing all taught modules from the Spring and Autumn semesters, excluding the research project/dissertation.

Students with up to 30-credits of re-assessment awarded as first attempts owing to approved exceptional circumstances, and who otherwise meet the progression requirements, may progress onto the Postgraduate Placement module and retrieve their outstanding credits during their placement. All other students who have failed one or more modules will not be eligible to progress onto the Postgraduate Placement module. This applies even if they have assessment attempts remaining. These students will revert to the standard degree title of the one-year master's programme.

International students only:

- Students wishing to transfer onto this programme should discuss this with Immigration Compliance and Advice (ICA) and their Programme Director. If the transfer request can be approved in line with UK Visas and Immigration (UKVI) rules, students should be aware that a visa extension would be required (this can be applied for within the UK) once the placement opportunity is confirmed. The cost of this would be the student's own responsibility, but ICA will be able to provide advice and guidance on the process.
- International students who do not complete their placement or cannot secure a placement opportunity, but who do pass 180 credits of the taught element of the course, will be transferred to the non-placement version. This will be reported to UKVI as "early completion" and their Student Visa would be cancelled. UKVI would not issue any refund for overpaid Immigration Health surcharge in this instance.
- Provided students have passed 180 credits of the course and met all other eligibility criteria, they will still be eligible to apply for the Graduate Route.

Student Support

Students will be supported whilst on their placement via the following methods:

- Regular contact between the student and a named member of staff from the Placement and Project Managers (PPM) team who will be assigned to the student as their placement supervisor. The placement supervisor will be in regular contact with the student throughout the year and be on hand to provide advice (pastoral or academic). If the student has any academic queries whilst on placement they will be signposted to the relevant member of academic staff (i.e., Academic Mentor, Programme Director or module leader).
- Formal contact with the student during the placement. The placement supervisor will meet once with the student, and their line manager (physically / virtually) at the midway point of their placement. Additional meetings may be arranged if required.
- Placement providers will be issued with guidance on how to raise concerns about students as part of the placement approval process.

Learning Outcomes

In addition to the learning outcomes specified in the main text of the Programme Specification, students who complete the 'with Placement programme will be able to:

1. Understand and discuss the variety of ways in which skills developed during their study can be deployed in non-academic contexts.
2. Develop broader organisational/sector understanding and reflect upon their activities in this context.
3. Assess their own strengths and weaknesses in an employment context.
4. Articulate their placement skills and experiences effectively and through a variety of means (verbal and written).

These learning outcomes will be assessed through the non-credit bearing Postgraduate Placement module which provides a structure to ensure that students make the most of the placement as an integrated learning experience. Students will complete an initial skills audit and placement plan when they begin their placement and submit a final placement portfolio which includes a reflective diary completed during placement.

Regulations

Students registered for the 'with Placement' programme are subject to programme-specific regulations (if any) and the University regulations. In addition, during the placement, the following regulations will apply:

- Students undertaking the 'with Placement' programme must successfully complete the zero-credit rated module 'Postgraduate Placement'.
- In order to ensure a high-quality placement experience, each placement provider will sign a tripartite learning agreement (analogous to a service level agreement), and a health and safety checklist.
- Once a student has been accepted by a placement organisation, the student will submit a placement proposal and will be assigned a placement supervisor (from the PPM team). The placement supervisor will be responsible for ensuring that the placement experience meets the required criteria, the placement organisation meets all health and safety expectations, and a tripartite learning agreement is signed by all parties.
- The placement student will also sign up to an agreement outlining their responsibilities in relation to the requirements of each organisation.

Students will be expected to behave professionally in terms of:

(i) conforming to the work practices of the organisation; and

(ii) remembering that they are representatives of the University and their actions will reflect on the University and have an impact on that organisation's willingness (or otherwise) to remain engaged with the placement.

Additional costs for the Placement

Tuition fees for students on the 'with Placement' programme will be charged at 20% of the standard Undergraduate annual tuition fees for that year of study, as set out in Section 1.

Students will be responsible for meeting the costs of travelling to and from their placement provider, accommodation, food and personal costs. Depending on the placement provider additional costs may include parking permits, travel and transport, suitable clothing, DBS checks, and compulsory health checks.

A small stipend may be available to students from the placement provider during the placement, but this will need to be explored on a placement-by-placement basis as some organisations, such as charities, may not have any extra money available. Students should budget with the assumption that their placement will be unpaid.

Eligibility for student finance will depend on the type of placement and whether it is paid or not. Students are required to confirm eligibility with their student finance provider. As part of the placement approval process, all students will be referred to the Student Financial Support team for advice and guidance regarding scholarships, bursaries and access to additional funding.

International students who require a visa should check with the Immigration Compliance team prior to commencing any type of paid placement to ensure that they are not contravening their visa requirements.

Version History

This document

Date Approved: 10 July 2025

What's Changed

Section B7 updated.

Previous documents

Version No	Year	Owner	Date Approved	Summary of and rationale for changes
1	2025/26	EDWARD DE QUINCEY	19 June 2025	
1	2024/25	EDWARD DE QUINCEY	10 June 2024	
1.1	2023/24	SANGEETA SANGEETA	07 November 2023	Changes to semesters. Pushed through to create 24/25 version
1	2023/24	SANGEETA SANGEETA	17 April 2023	
1	2022/23	SANGEETA SANGEETA	19 August 2022	
1	2021/22	EDWARD DE QUINCEY	28 July 2021	Additional option module added in Semester 2.
1	2020/21	EDWARD DE QUINCEY	11 August 2020	