School of Mathematical & Computer Sciences
Actuarial Mathematics and Statistics

in collaboration with

School of Engineering and Physical Sciences

HERIOT WATT UNIVERSITY

Programme Handbook

Master of Science in Computational Data Science

2023/2024

All students registered for this programme are expected to have read and to be familiar with the contents of this Handbook.

Contents

PART A: SCHOOL INFORMATION

A1.   How to Use This Handbook

This handbook provides you with:
- An overview of your programme, its structure and its courses.
- Contact information for key staff in your programme, subject and academic School.
- Details of support and resources available to you as a Heriot-Watt student.

Take time to look through the information provided, but also use it for reference if you are unsure of anything, if you want to contact someone, or if you want to find out more about any aspect of your studies. This Handbook is not just for your first week or two at University, nor is it something to be read once and discarded, you will find it useful to refer back to its contents in the coming weeks and months. If you can't find the information you are looking for then you can ask your personal tutor.

All information is correct at the time the Handbook was produced.

A2.   Welcome

Welcome from the Principal and Vice Chancellor of Heriot-Watt University

I am delighted that you have chosen our unique and innovative University and have entrusted us with your education for the next few years.

Heriot-Watt is a community of people, with a purpose, and I would encourage you to seek out the opportunities that will enable you to further develop your own individual sense of purpose to impact society. Many students and staff participate in creating their own 'impact statement' during the course of their studies, so do look out for this.

Throughout your studies you will have the opportunity to thrive both personally and academically, and I would encourage you to take advantage of all that our campuses, student societies and global community has to offer you. Our Student Partnership Agreement is central to all that we do to ensure the best possible student experience across all our campuses globally. And, we are delighted to offer opportunities for students to gain a global perspective, whether at a single campus or abroad. Our Go Global programme offers inter-campus transfers and exchanges across our wonderful campuses in Edinburgh, Scottish Borders, Orkney, Dubai, and Malaysia, allowing you to study, socialise or experience new cultures and places. We encourage you to connect with likeminded individuals across the globe and grasp every opportunity with both hands.

The very nature of a Heriot-Watt education is one that allows you to benefit from our research-informed approach, underpinned by our rich heritage and values. We're dedicated to providing you with the confidence and purposeful leadership skills to be a global citizen, and the expertise to one day become a leader in your chosen field or career. And our lifelong careers support leads to real jobs. That is why Heriot-Watt is ranked the top University in Scotland and fourth in the UK for the employability of its graduates. We are also proud to be able to welcome you to a University that currently ranks amongst the top 250 worldwide, an accolade that reflects our commitment to excellence in research, teaching, and innovation.

In Malaysia, our state-of-the-art lakeside campus in Putrajaya is the first "green campus" in the country, and the introduction of our unique Positive Education approach to students there in 2017 shows our commitment to nurturing graduates who will go on to make an impact as purpose-driven leaders.

Our campus in Dubai has established itself as a pioneer in the higher education market in the UAE, having received a five-star accreditation by the Knowledge and Human Development Authority, for three consecutive years. Its graduates are highly employable and sought after by the best organisations worldwide, with over 90% in graduate level jobs or further study within six months of graduation.

We look forward to supporting you as you too grow and become a successful graduate in our own right. On behalf of our global *OneWatt* community, I'd like to take this opportunity to say: welcome to the family.

Professor Richard A. Williams OBE
Principal and Vice-Chancellor

A3.   Globally Connected Learning

Our University teaching model is **Globally Connected Learning,** an approach that blends on-campus teaching with online activities, support and resources to create a rich student learning experience. Throughout your studies at Heriot-Watt you will be able to learn, interact and collaborate with your classmates and your academic teaching team through a range of inspiring activities and learning events.

If you are enrolled on our campus-based programmes you will be able to take full advantage of all that campus life offers. Our campuses are at the heart of our community and campus-based learning is core to the Heriot-Watt student learning experience.   You will be expected to attend campus-based teaching and undertake any assessments or examinations scheduled on campus. Your studies are supported via our Virtual Learning Environment, Canvas, and may include other online activities.

 If you are enrolled on our independent distance learning programmes you will undertake your studies online. You will be expected to participate in online teaching, assessments and examinations set on your programme.

The specific balance of on-campus and online learning on individual courses will depend on the subjects you are studying and the activities and resources your course team have designed to help you engage effectively with your studies.

Our approach is founded on a commitment to student partnership. That means you are encouraged to take responsibility for your own learning, to actively participate in the opportunities open to you. Your course team will support you to plan your time carefully to make the most of Globally Connected Learning.

Making the most of your time at university is not just about study. Your health and wellbeing is vitally important. You can discuss any issues around your learning or your wellbeing with your personal tutor (see below) and with the University's support services (see below)

A4.   Personal Tutors

Every student has a member of academic staff allocated to them as a personal tutor who will be a key source of advice, guidance and support during your time at Heriot-Watt. Your personal tutor is your first point of contact if you need advice on any issue, both academic and non-academic, and can refer you to other support services where relevant for non-academic matters. Personal tutors provide a clear point of contact for you throughout your degree.

While social distancing is in operation, or if you are off campus, you can still arrange to meet your personal tutor remotely and contact them by email.

You will meet your personal tutor during the welcome week. More details about personal tutoring can be found here.

1   Introduction

This handbook is a guide to what is expected of you on this MSc in Computational Data Science programme, and the academic and pastoral support available to you. Please read it carefully. It will help you to make the most of your time on the Programme.

Useful information can also be found in the School of MACS new website here:
https://www.macs.hw.ac.uk/students/

Students can also get advice on a range of Finance, Hospitality Services and Academic Registry issues from the Student Service Centre
https://www.hw.ac.uk/services/student-service-centre.htm
which is situated in the Hugh Nisbet Building on Riccarton Campus (email: studentcentre@hw.ac.uk).

2   Programme Aims

The programme will provide the students with training in foundations and applications of data science, so that they can be employed in any academia or industry role that requires using data to provide evidence to support decisions and conclusions under uncertainty.

The students on this programme will:
- be introduced to Machine Learning techniques, supervised and unsupervised learning, neural networks, and evolutionary computing, and practical experience of applying these to data modelling problems in several disciplines
- receive an extensive training in statistical inference (both classical and Bayesian analysis paradigms), and related computational methods, and practical experience of applying these to data modelling problems in various disciplines
- apply the obtained skills in various applications through project work, involving systems and data from fields such as signal and image processing, communications, robotics, finance, ecology, or complex networks
- obtain access to staff from leading research groups, teaching state-of-the-art techniques and methods that they have developed and that they use in their own research.

Within this programme, students will be offered a degree of flexibility in the options that they study, allowing them to specialise in specific domains of application of interest to them.

3   Enrolment

All student enrolment is completed online. You are responsible for ensuring your enrolment details are correct, and that you have enrolled for all courses that you wish to take. Information to assist with course selection will be provided at the Pre-Enrolment meeting.

You must enrol for either the PG Diploma in Computational Data Science or the MSc in Computational Data Science. If you change your mind and wish to change programme you may only do so before 30 September by advising the Programme Director in writing. International students should be aware that any programme changes will be notified to the UK Border Agency and this may have implications for your student visas.

No refunds of programme fees will be provided to students who leave the University without completing the programme for which they are registered for any reason (i.e. regardless of whether this departure is voluntary or because students have failed to qualify for the desired award).

3.1 Timetable

Timetables can be found at: https://www.hw.ac.uk/students/studies/timetables.htm. Occasionally it is necessary to make adjustments to the timetable, such as rescheduling a class – all changes will be notified on the class VISION pages or by email.

3.2 Attendance

In order to achieve course and programme learning outcomes, students are expected to attend all scheduled course learning sessions (e.g. timetabled lectures, tutorials, lab sessions, etc). Should you have to miss a timetabled session due to ill health or other legitimate reasons, you should submit a self-certification or medical certification or an application for consideration of Mitigating Circumstances.
https://www.hw.ac.uk/students/studies/examinations/mitigating-circumstances.htm

Students who fail to satisfy course attendance requirements may, after due warning, be disallowed from presenting themselves for examination in the course.
https://www.hw.ac.uk/students/studies/record/attendance.htm

Coursework must be handed in by the stipulated dates, and students are required to see their personal mentors at agreed times. Students who fail to submit compulsory coursework may also be disallowed from presenting themselves for examination in the relevant courses.

All lectures and tutorials are compulsory and registers of attendance may be taken.

If you are absent from class due to illness for four days or less, you should complete a self-certification form, obtainable from the School Office, and return it to the School office within a week of your return. If you are absent for more than four days, you must supply a medical certificate to the School Office within a week of your return.

Students on a Tier 4 Student Visa are required to attend the signing-in sessions in October, November, February, March, June, July and August. You must also attend the re-enrolment session in January. It is your responsibility to make sure that you attend these events. Failure to attend will mean that you will be reported to UKVI and your right to remain in the UK maybe removed.

3.3 Computer Facilities

You will enrol as a user of the University computer network. This will give you an email account, and access to word-processing facilities and various packages which will be needed for some courses. Once you have completed on-line enrolment you will print out a letter which confirms your enrolment. Along with this letter are details of your University user name and password. Your user name will also be your email address eg user name ab111 will have the email address ab111@hw.ac.uk

You will be credited with a printing quota for use over the year. While an additional allocation may be made in the summer for those proceeding to the MSc, you are advised to use your quota sparingly.

Abuse of the computing facilities will result, at the very minimum, in a ban from the facility.

Information about our Information Services can be found at:
http://www.hw.ac.uk/is/guides/getting-started.htm

4 Administration

The administration for the Programme is handled by the Department of Actuarial Mathematics and Statistics at Heriot-Watt University, which is part of the School of Mathematical and Computer Sciences. The other entities involved with the Programme are the School of Engineering and Physical Sciences. Each department has a Programme Coordinator responsible for the courses run by that department.

Programme Directors
Dr Seva Shneer
Department of Actuarial Mathematics and Statistics
School of Mathematical and Computer Sciences
Heriot-Watt University
Room CM.S07, Colin Maclaurin Building
Email: v.shneer@hw.ac.uk

Prof. Yves Wiaux
School of Engineering and Physical Sciences
Room 3.20 Earl Mountbatten Building
Email: y.wiaux@hw.ac.uk

Programme Deputy Director
Dr Yoann Altmann
School of Engineering and Physical Sciences
EMB 3.17, Earl Mounbatten Building
E-mail: Y.Altmann@hw.ac.uk

4.1   Key Dates

https://www.hw.ac.uk/study/apply/uk/academic-calendar.htm

4.2   Consolidation Week

The Consolidation Week is an opportunity to pause within the semester. It will allow both staff and students to reflect on courses, catch-up with outstanding pieces of work and consolidate material that has been covered in the first half of semester to determine aspects of the course that may need to be revisited, re-enforced, etc. There will also be the opportunity for students to engage in additional induction and wellbeing activities, careers sessions, etc.

The following outlines the main expectations for both staff and students:
• The Consolidation Week is not a vacation/break. It is intended to slow the pace, somewhat, and allow reflection and consolidation of learning. Support activities will still take place during this week.
• No new material will to be covered during Consolidation Week.
• There will be no assessment submissions for students during Consolidation Week.
• Schools can continue to actively support student learning activities, for example, laboratory, studio and workshop sessions as this helps to consolidate theoretical learning that has taken place.
• For example, during Consolidation Week, instead of providing activities which staff actively lead, students can be asked to work independently, catch up with coursework/tasks, under-take some revision and reflection activities, and so on.
• Staff are not expected to fill the timetable up with additional activities in Consolidation Week – remember this is meant to be a change of pace at a point in the middle of semester.

4.3   Mitigating Circumstances

If you experience any mitigating circumstances which affect your ability to complete your assessments you must notify us as soon as possible.
You should read the University's Policy on Mitigating Circumstances in Relation to Assessment at: https://www.hw.ac.uk/students/studies/examinations/mitigating-circumstances.htm   and then complete the application form. This form along with any relevant evidence (e.g. medical certificates) should be submitted to the School Office. Evidence submitted after your results have been published cannot be taken into account.
If you think you qualify as a Special Needs student (if for example you are registered with a disability) please bring this to the attention of the Programme Director as soon as possible.

It is very important that if you have a problem you seek help as soon as possible, and notify us of the situation. The Examiners will always take such circumstances into account where appropriate, but the later the notification, the less scope there is to do so. Notification of mitigating circumstances must be given before the Exam Board meeting is held. Late notification will normally mean that no consideration can be taken of the circumstances.

Any information which you provide to us will be used solely by the Board of Examiners to determine how best to help you, given the circumstances. We will not share the information with other students or services of the University without your consent.

4.4   Temporary Suspension of Studies

If students are unable to study for a considerable period (i.e. more than one diet) they should inform their personal tutor, so that such periods of non-study can be taken into consideration when reviewing the students continued registration on the Programme.

If students continue to be unable to study for a specific known period (for example, more than one year) due to other external factors (for example, maternity), then they should seek to temporarily suspend their studies.

If you intend to apply for a suspension of studies, please contact your School/Institute Office. You can find useful information here: https://www.hw.ac.uk/students/studies/leaving/temporary-suspension-studies.htm

4.5   Withdrawing from Study

Students may find that the Programme is not suitable for them and they may decide to withdraw from it. Students should think very carefully before they do withdraw. If they do so, it may well be that sometime later they decide that they would like to continue with their studies.

Before making a final decision about withdrawing, students should discuss their situation with their Personal Tutor.

The University has a "Thinking of Leaving" Service which you can use. Please see more information here: https://www.hw.ac.uk/students/studies/leaving.htm where you can find a range of information and advice that can help you make the final decision.

4.6   Personal Tutors

All Heriot-Watt students are allocated a personal tutor. https://www.hw.ac.uk/students/studies/personal-tutors.htm. If you have any academic, personal or financial problems during the year your personal tutor will be very willing to advise or help you within their competence. If they cannot help you they will advise who you should speak to for more expert advice.

You are required to meet with your mentor at least once each semester. For international students this counts as a required contact point for attendance monitoring purposes.

4.7   Representation and feedback

Great emphasis is put on student feedback to improve the student experience, particularly with respect to the delivery of courses. Feedback is a two-way process. Feedback is provided to students in a variety of ways in order to help you to reflect on and to evaluate your progress and to assist you to take steps to improve before the next relevant assessment. For most courses, students can expect feedback on assessed coursework within three teaching weeks of the coursework due date.

All students on the MSc should feel free to discuss aspects of the running of the Programme directly with the Programme Director. However, issues which are relevant to the whole of the class should normally be raised with the Programme Director through a student representative sitting on the AMS Department's Postgraduate Staff Student Liaison Committee.

At least one Class Representative will be elected at the start of the year. Class Reps will engage with the Programme Director to monitor and review all aspects of the Programme and act as the main communication channel between students on the Programme and the Programme Director. If an issue emerges with the Programme, the Programme Director will ask the Class Reps to discuss the issue with the class and report back.

Feedback is sought from students also via various surveys so that the School can continue to enhance the student learning experience. Your feedback is valued by the School, so please be sure to provide feedback whenever it is sought.

5 General Information

5.1. Teaching Accommodation and Staff Accommodation

Classes may be held in any teaching rooms on campus. Students on other postgraduate programmes will join the class for certain lectures.

The academic staff of the Department of Actuarial Mathematics and Statistics all have their offices in the Colin Maclaurin (CM) building.

5.2. Contacting You

The Programme Director and lecturers will regularly communicate with you by email. All emails will be sent to your Heriot-Watt email address (*e.g.* abc123@hw.ac.uk) and NOT to any personal email address you may have.

It is your responsibility to find out what arrangements have been made and what information has been sent to you.

You are expected to check your email in-box regularly.

You should also check CANVAS regularly for announcements and updates.

Social Media and Personal Channels

You should communicate with academic and administrative staff via approved Heriot-Watt University internal channels (e.g. official Heriot-Watt email and telephone, Skype for Business, MS Teams, Collaborate Ultra and Vision). Students should NOT use personal social media profile (e.g. Facebook, Instagram, Twitter, etc.) or other personal channels for any communications with staff (e.g. personal mobile use for calls, text / WhatsApp, personal emails, etc.).

5.3 Finance

Students are reminded that tuition fees are due prior to or at enrolment and are payable immediately. Anyone who is experiencing difficulty in meeting their repayments should contact the Student Service Centre immediately. The University has a strict policy regarding the payment of invoices and students who fail to meet this will have their student privileges withdrawn and may in some cases be subject to legal proceedings.

If you are experiencing difficulties in meeting your payments it is essential you contact the Student Service Centre at the first available opportunity. You may also wish to seek advice from your Personal Tutor who can liaise with Finance Office on your behalf.

If you are paying by recurring card plan the payments will be taken in six, equal monthly instalments on specific dates. This option is not flexible and one missed payment will result in the agreement being revoked and the remaining balance will be due for immediate payment.

No student with outstanding debt will be permitted to graduate from the University, and in some cases students with debt may be prevented from continuing to the MSc project work stage of the programme.

6   Teaching and Learning Approach

Teaching on the course is student-focussed, with students encouraged to take responsibility for their own learning and development. The full-time MSc/Diploma course is offered in a traditional campus-based model. The material is organised within 8 full courses. All material is presented in a manner appropriate to postgraduate study. A wide range of L&T approaches and techniques are used to achieve this, from traditional lectures and discussions to demanding tutorial and computer lab work, as well as individual and group projects. Lecturers use a range of tools from chalk and talk to extensive use of web-based materials. Approaches to teaching and learning are continually reviewed and developed with the aim of matching them to the abilities and experiences of our students with regard to the subject area. Specific details about teaching and learning methods are provided in the appropriate course descriptors.

6.1 Core Courses

Mandatory courses:
All students are required to take a total of 3 mandatory courses in each semester (Optimisation and Deep Learning for Imaging and Vision I, Statistical Machine Learning, Statistical Models in semester 1 and Optimisation and Deep Learning for Imaging and Vision II, Critical Analysis and Research Preparation, Bayesian Inference and Computational Methods in semester 2), which are designed to equip students with the foundational tools of data science, with a first clear opening to application.

Optional courses:
Students will be able to choose further 2 courses (1 in each semester) from a number of options relating applications ranging from signal and image processing, communications, and robotics, to ecology and complex networks. This will allow them to pursue their learning in a more specialised manner, and to focus on domains of most interest to them depending on their background and previous experience. We suggest 3 different pathways:
Pathway 1: Foundations of Learning and Computer Vision (semester 1) and Graph Methods for Imaging, Vision and Computing (semester 2)
Pathway 2: Mathematical Ecology (semester 1) and Data Assimilation (semester 2)
Pathway 3: Probabilistic Methods (semester 1) and Stochastic Networks (semester 2)

It is possible to take courses from different pathways, with the exception of Stochastic Networks that can only be taken in combination with Probabilistic Methods.

Project and Dissertation phase:
Students will choose a project/dissertation subject for semester 3, offered by academic members of staff in MACS or EPS. Joint supervision of some projects by staff from both Schools will be anticipated and encouraged. Students will also give a presentation of their results.

6.2   Attendance
In order to achieve course and programme learning outcomes, students are expected to attend all scheduled course learning sessions (e.g. timetabled lectures, tutorials, lab sessions, etc). Should you have missed a timetabled session due to ill health or other legitimate reasons, you should submit a self-certification or medical certification or an application for consideration of Mitigating Circumstances
https://www.hw.ac.uk/students/studies/examinations/mitigating-circumstances.htm.

Students who fail to satisfy course attendance requirements may, after due warning, be disallowed from presenting themselves for examination in the course.

During the dissertation period students will have meetings with their supervisor. These meetings are compulsory. Unless granted a leave of absence, students are expected to stay in Edinburgh during the dissertation period.

6.3   Combining work and study

It should be stressed that the Programme is full-time. You should expect to spend 40 hours per week attending classes, working on the delivered material and preparing assignments for submission. Unless you manage your time well, there will be weeks (particularly towards the end of Semester 2) when you will have to work significantly more than 40 hours. As a consequence, it is recommended that students do not take any employment.

Full time students shall not work more than 16 hours per week during term or during the summer months when the MSc dissertation is prepared. Students can take a part-time job only under the condition that such an activity will not adversely affect their performance on the MSc. Any part-time job which would exceed 16 hours per week should be discussed with the Programme Director.

6.4   Coursework and group assignments

The coursework requirements –case studies, essays, and other projects—vary between courses, as does the balance of the methods of assessment. The weighting of coursework and examinations for individual courses is given in the information for each course.

All students must adhere to deadlines for the submission of work. Work handed in late will incur a penalty. The penalty for late submission is a reduction of the mark by 30% of the maximum obtainable mark per calendar day. This applies for up to five calendar days (or to the time when feedback is given, if this is sooner), after which a mark of zero will be given. Note that the reference to "calendar days" includes weekends and public holidays. Students may not, for example, submit work on a Monday morning for a Friday deadline in the expectation that no late penalty will be applied. If there is likely to be a delay due to illness or other crisis, the Programme Director must be informed in writing so that an extension may be considered.

6.5   Plagiarism

The University has a strict policy on Plagiarism – passing off as one's own the ideas or writing of another. All students should be familiar with the University's policy on plagiarism:
https://www.hw.ac.uk/students/studies/examinations/plagiarism.htm

Plagiarism undermines every academic principle. Plagiarism is cheating and the Department, the School, and the University treat it very seriously indeed. This is relevant for all students and has implications for course work, exams and the writing of MSc dissertations. The sanctions for plagiarism range from the discounting of the plagiarised work, the course or dissertation completely, withholding of the degree or Diploma concerned, or ultimately to expulsion from the University.
Anyone indulging in plagiarism of any kind can expect no sympathy or understanding from the University. Typically plagiarised work is discounted and will normally result in the student failing the relevant course.

We will automatically assess work which we feel is plagiarised, the system is extremely powerful in employing the Internet to identify source documents. Copying text verbatim from any electronic source (or book or journal article that is available electronically) without attribution will be identified as plagiarism.

If you have the slightest doubt about any aspect of this matter and of how your own work relates to it, you must discuss it with the Programme Director before submitting any work.

6.6   Disability and Special Needs

Some students on the MSc may have a form of disability or have special needs. Examples include students with hearing, eyesight problems or physical disabilities. We are very happy to make special arrangements to help you as much as we can to make your year here a successful one.

If you do think there is something that we can help with then you should first make contact with the Student Wellbeing (http://www.hw.ac.uk/students/health-wellbeing/disability.htm).

The special needs adviser is also a useful person to contact during the year for some problems that might arise during the year, such as if you break a bone.

6.7   CANVAS
Each course based at Heriot-Watt University will have on-line material available at the University's Virtual Leaning Environment (CANVAS) which can be found at: https://canvas.hw.ac.uk/. You will have access to information for all the courses for which you are enrolled

7   Dissertation
7.1   General Information
The dissertation gives students the opportunity to make use of the knowledge and skills developed on the programme, frequently by working on a real mathematical finance problem within an external organisation, although dissertation projects may also be desk/library based.

Prior to the final assessment of the taught component of the MSc programme, all students are considered as MSc candidates. Following the Board of Examiners meeting in late May/early June, students who complete the taught component at MSc level proceed to the dissertation stage of the MSc programme. The award of the MSc degree thereafter depends solely on the achievement of a dissertation mark of at least 50%.

It is the responsibility of each MSc candidate to prepare a dissertation on a subject chosen by agreement with a member of staff who will act as an Academic Supervisor. Normally, the projects are organised as group projects, i.e. groups of about 4-5 students work on different variants of the same core topic with the same supervisor. Dissertation topics will be agreed by mid-May or earlier. Detailed work will be carried out during the months of June, July and August, with sufficient time being allocated to writing the dissertation. In some cases the research for the dissertation will involve working with an outside organisation for at least part of the summer months.

Full-time postgraduate students are required to be in Edinburgh for the duration of the Programme, unless specifically granted a leave of absence. We will not allow the student to submit a dissertation early in order to return home prior to the end of the Programme. Completing a dissertation in less than the time available is not recommended, as early completion may adversely affect the standard of work and presentation.

If commercial confidentiality requires that a dissertation be treated as confidential, this can be arranged by informing the Programme Director at the time of submission. Confidential dissertations will be read by the Academic Supervisor and examiners, and will not be available for reference.

You are strongly advised to keep a back-up draft of your dissertation and not to use a USB stick for this purpose since they are easily lost or damaged. No compensation or extension will be given for work or data lost by students.

7.2   Role of the Academic Supervisor
The Academic Supervisor will give advice on the subject area, relevant literature, presentation format, methodology, structure of the dissertation, and scheduling of the work to be done. The final responsibility for the dissertation always lies with the student. Supervisors are not expected to read and amend chapters, but they may require periodic progress reports and sample chapters. The responsibility for the quality and content of a dissertation lies with the author of the dissertation.

Academic staff acting as Academic Supervisors cannot be expected to be available at all times, especially during the summer period, although staff will provide back-up facilities during their absence. Meetings should be arranged between Academic Supervisors and students at regular intervals, as appropriate. These meetings are primarily the initiative of the student. The frequency of contact with Academic Supervisors depends on the wishes of the individual student and Academic Supervisor, but students should try to discuss progress with their Academic Supervisors at least

once every 2 or 3 weeks, with more frequent discussions in the early stages. In the case of projects based in an external organisation, Academic Supervisors may visit the students in the organisation.

Students may ask their Academic Supervisors to read a draft of part of the dissertation, but it is up to the Academic Supervisor's professional judgement as to how much of the dissertation he or she is willing to read. An Academic Supervisor cannot examine a dissertation before it is formally submitted and any comments which an Academic Supervisor makes on a draft are provisional in that the Board of Examiners may come to a decision which differs from that of the Academic Supervisor.

7.3 Assessment criteria
All dissertations are expected to conform to the following standards:

- The dissertation must add to the understanding of the dissertation subject.
- The dissertation must show awareness of the relevant literature.
- The dissertation must contain relevant analysis: an informed description of a problem is not sufficient.
- The dissertation must be presented using a satisfactory standard of English.

Students should immediately inform their Academic Supervisor and the Programme Director of any factors that will adversely affect their ability to work on their dissertation topic. Extenuating circumstances will be taken into account by the Board of Examiners, but this information must be available prior to the meeting of the Board. Exceptionally, it is possible for extensions to be granted if justified by illness or other personal problems. This can be done if relevant information is given in due course to the Academic Supervisor or the Programme Director.

7.4 Dissertation format
Dissertations should consist of the following:

- Title page with your NAME, EXAM NUMBER, PROGRAMME TITLE, DISSERTATION TITLE and YEAR
- Abstract
- Acknowledgements
- Own work declaration (signed and dated)
- Table of contents
- Main text (including introductory chapter and final chapter on conclusions and/or recommendations)
- Appendices (optional)
- Bibliography

The main text of the dissertation must not exceed 35 pages, based upon a 12-point font size and 1.0-line spacing. The main text referred to here, does not include such things as tables, graphs, figures, appendices and computer code. Dissertations must be type set on white A4 paper only. It may be printed either single- or double-sided. The following minimum margins must be observed.

Left 30mm	Right 15mm	Top 15mm	Bottom 20mm

The pages in the main text, appendices and bibliography must be numbered consecutively.

7.5 Submission of the dissertation
The dissertation must be submitted electronically via the platform CANVAS (see section 4.9)

by the submission date specified to you.

8 Assessment Requirements
The University operates Heriot-Watt Assessment and Progression System (HAPS) which specifies minimum progression requirements. Schools have the option to apply progression requirements

above the minimum University requirement, which are approved by the Studies Committees. Students should refer to the programme specific information on progression requirements. This information is detailed below.

To determine the overall assessment of the taught component, courses are weighted. Courses can have weightings of 20 credits, 15 credits, 10 credits and 7.5 credits. The total weight of the core courses is 97.5. Students must choose optional courses having a total weight between 22.5 and 30 credits.

The overall mark for the taught component of the Programme is the credit weighted average over courses (core and optional courses). Sufficient conditions for the various awards that can be made are set out in the table below.

Upon completion of the taught component of the Programme, any student satisfying the conditions set out in the Taught Assessment Regulations, will be permitted to proceed to the dissertation.

Students can be permitted one re-assessment opportunity in a maximum of three taught courses. For more details please contact the Programme Director.

Students can register for a Masters or Postgraduate Diploma in Applied Data Science. Students registered for the MSc degree need to satisfy certain progression criteria, enabling them to proceed onto the Dissertation. If they fail to meet these criteria, given below, they will graduate with a Diploma or Certificate, according to the circumstances.

8.1   Awards

	Total Course Passes	Overall Mark	Overall Grade	Basis of Overall Mark/Grade
Master (Distinction)	8+Dissertation	70	A	Credit Weighted Average greater than or equal 70% over 8 courses at grades A-C plus a Dissertation at grade A.
Master (Merit)	8+Dissertation	60	B	Credit Weighted Average greater than or equal 60% over 8 courses at grades A-C plus a Dissertation at grade B.
Master	8+Dissertation	50	C	Credit Weighted Average greater than or equal 50% over 8 courses at grades A-D plus a Dissertation at minimum grade C.
Diploma (Distinction)	8	70	A	Credit Weighted Average greater than or equal 70% over 8 courses at grades A-C.
Diploma	8	40	D	Credit Weighted Average greater than or equal 40% over 8 courses at grades A-E.
Certificate	4	40	D	Credit Weighted Average greater than or equal 40% over 4 courses at grades A-E.

8.2   Examinations
Students must attend all examinations. The Registry will give details of the location of each examination once this is known. Information on the form of the examination will be given for each course. It is the student's responsibility to check all relevant examination timetables.

For Heriot-Watt University examinations, please see the Registry web page https://www.hw.ac.uk/students/studies/examinations.htm
It is important that students do not make any travel arrangements until the final examination timetable has been published. However, please note that changes to the final timetable may still be required after it has been published due to circumstances beyond our control.

Students who do not attend an examination will be deemed to have failed. If there are special circumstances relating to the non-attendance, a Mitigating Circumstances form and appropriate documentation must be submitted. Students will not be excused from the examinations because of holiday plans. It is very important that you notify the Programme Director as soon as possible of any mitigating circumstances (such as illness or death of a close relative) which could adversely affect your studies and/or examination performance.

In the case of illness, a medical certificate must be supplied as soon as possible to the Programme Administrator. The Examiners will always take such circumstances into account where appropriate, but the later the notification, the less scope there is to do so. Notification of special circumstances must be given before the examination diet concerned.

Late notification will normally mean that no account can be taken of the circumstances. With regards to submission of project work, students are required to take reasonable precautionary measures to keep their work in progress safe such as regular backups of computer files.

8.2.1 Dictionaries in Examinations
No student is permitted to take any dictionary into an examination without written permission. The only exception to the policy is in the case of individual students who had been assessed by the University's Disability Service as requiring access to a translation dictionary.

8.2.2 Calculators
Where a calculator is required for the completion of an examination, a student may use any basic scientific calculator, except the following: graphics calculator, programmable calculator and a calculator which features text storage or retrieval facilities, see
https://www.hw.ac.uk/students/doc/approvedcalculatorguidance.pdf

8.2.3 Unauthorised material
You must not have any unauthorised electronic devices or pre-printed materials in the examination room. Cheating in an examination is treated very seriously by the University. If you do have any material relevant to the exam which you have brought in by mistake, you must hand it over to an invigilator before the start of the examination. Invigilators will carry out checks on authorised materials and calculators.

8.2.4 Re-Assessment Opportunities
Students will be able to be re-assessed in a <u>maximum of 3 courses</u>.

A student who has been awarded a Grade E or a Grade F in a course may be re-assessed in that course. A student who has been awarded a Grade D in a course may be re-assessed in that course in order to proceed to, or be eligible to receive the award of, Masters.

If you have already passed eight courses at D Grade or above but have not qualified for progression to the MSc (as your average in the best eight courses is lower than 50%) you may resit the exam in up to three courses where you achieved no more than a D Grade at first attempt in order to increase your average in the best eight courses and proceed to the MSc.

You must take the resit examinations at the next available opportunity. For most students this will be in the next academic session - December 2024 and/or April/May 2025. *Only one resit opportunity will be permitted in a maximum of 3 courses.* All reassessment is based on examination results only, even in courses which include assessable coursework

If you are required to be re-assessed before you are able to progress to the MSc Project Work and if you are in the UK on a Tier 4 Visa, the University is obliged to inform the UKVI that you will not be continuing with your project in the Summer of 2024 and therefore your visa will cancelled and you will be expected to leave the UK as soon as possible after the release of your results.

If you are not a UK resident you may be able to take the re-assessment exams off-campus i.e. in your home country. Further information on this will be provided to students at the relevant time.

Special arrangements may apply where a student has presented mitigating circumstances in relation to the first attempt. See the relevant section later in this Guide for more information.

Students who achieve the standards required to progress to the MSc following reassessment will be invited to return to the University in Summer 2024 to undertake MSc project work. We do not normally offer MSc supervision at other times of the year.

Students who fail to meet the standards required for the PG Diploma following reassessment may be awarded the PG Certificate in Computational Data Science provided they have they have met the requirements above.

PART B: UNIVERSITY INFORMATION

B1. Programme and Course Content

The content of our programmes and courses is reviewed annually to make sure it is up-to-date and relevant. Individual courses are occasionally updated or withdrawn. This is in response to discoveries through our world-leading research; funding changes; professional accreditation requirements; student or employer feedback; outcomes of reviews; and variations in staff or student numbers. In the event of changes the University will consult and inform students in good time and will take reasonable steps to minimise disruption.

B2. Our Values

At Heriot-Watt, we have an established set of values that help up to nurture innovation and leadership and show our commitment to continuous development in all our activities. They are:

- **Belong** to a diverse, inclusive and international community working together across boundaries and cultures
- **Inspire** curiosity to learn and find solutions that transform lives
- **Collaborate** by working in partnership to shape the future whilst taking responsibility for our own actions
- **Celebrate** excellence and take pride in the achievements of our students, staff and alumni

Find out more about the Heriot-Watt Values and what they mean to us.

B3. Student Partnership Agreement

Heriot Watt University and the Heriot-Watt Student Union (UK), Heriot-Watt Student Association (Malaysia) and Heriot-Watt Student Council (Dubai) work in partnership to develop a Student Partnership Agreement (SPA) each year. The Agreement identifies the main, agreed priorities for working in partnership each academic year and outlines an associated action plan.

Heriot-Watt University has a long and proud tradition of student engagement in institutional governance and decision-making and the Student Partnership Agreement sets out our ambition to continue to work in partnership across all of our campus locations, with the aim of increasing engagement with the institution, enhancing the student experience and engendering a sense of belonging to the University community.

The Student Partnership Agreement is available here.

B4. University Regulations

Heriot-Watt has a detailed set of rules that govern how the University operates, these are the University's Ordinances and Regulations. Ordinances are set by the Court, which is the University's governing body, outline how the University is governed. University regulations provide the framework for the University's academic work and the education of our students and they define the policies, procedures and support outlined in the **Quick Finder Guide to Heriot-Watt University** section of this Handbook.

B5. Your Student Portal

The Student Portal brings together your services and relevant information in one place. Below is a summary of the services available to you via the portal:

- Office 365 suite: through single sign-on, all of your Office 365 services will be accessible through the Portal.
- Library: whether you want to search for books or view your loans & reservations, the Portal allows you to do this on your phone or desktop.
- Canvas: access your courses here, including announcements, tasks and assignments.
- Student Information: all university-level regulations and policies relating to your studies can be found on the Portal.
- Campus and School News: the Portal enables the University to promote events and experiences which will help you develop your skills.
- Personalised: You can hide, add and move tiles on your dashboard.
- AskHWU: You can find everything you need to help you navigate your time at HWU through the new AskHWU search tile. Ask questions of the University and enquire directly with members of staff to get information about ID cards, student finance, confirmation of studies letters, exams, enrolment, Careers, Wellbeing Services and much more.
- Appointments: book appointments with a range of different services (Student Wellbeing Services, Careers, Finance etc.) through your student portal.

You can access your student portal here

B6. A to Z Guide: Essential Student Information

This A to Z guide covers essential information about the support and resources available to you as a Heriot-Watt student.