Department of Computer Science
School of Mathematical and Computer Sciences
Heriot-Watt University

Honours Projects

2025 - 2026

F20PA/B/C – Honours project handbook:

Information, requirements, calendar, and marking rubrics

BSc Honours Computer Science
BSc Honours Computer Systems
BSc Honours Computing Science (Malaysia)
MEng Software Engineering

Honours Project Coordinators

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Alasdair Gray – 2014, revised 2015, 2016, 2017
Peter King – Original August 2008, revised August 2009, 2010, 2011, 2012

i About this document

The purpose of this document is to:

- Explain to you how your honours project works.
- Specify the complete calendar for your dissertation work.
- Provide guidelines about the main aspects of your dissertation.
- Summarise dissertation-related information in Year 4 of your studies.

Please note that the content of this document will be mirrored in your course pages online, but include more details in certain sections.

ii Table of contents

Detailed table of contents for the sections and subsections in this handbook document:

1 Introduction

1.1 Welcome

Welcome to your Honours Project courses. In these courses, you will acquire a range of skills to equip you to become an independent professional in preparation for your future career after graduation. These courses include a list of several talks that are designed to support your Honours Dissertation Project work. You will also be assigned a supervisor to help you work on a project that supports the degree you are studying.

1.2 Specifications and Learning Outcomes

In simple terms, in your Honours Project, you will need to **conduct a significant amount of work on a project** that may include the following sections (not always):

- A project proposal's sections.
- Research on a topic or theme.
- Preparation, design and feasibility work.
- Planning and management of the project.
- Development of a system, methodology or probe.
- Implementation of user studies, validation or performance tests.
- Evaluation of the system or results.
- Discussion of results, creation of insights or conclusions, and communication of them.

The specific **Learning Outcomes** or expectations for your Honours Project include:

- Demonstrate **understanding** of research methods or development-based problem-solving related to a substantial software development topic.
- **Formulate requirements** specification and **conduct background research** for a substantial software development topic.
- **Plan a significant project** of research, investigation or development.
- Undertake **critical review and evaluation** of data and supplied literature.
- Demonstrate practical knowledge in **software design and implementation skills**.
- Demonstrate **time management and project management skills**.
- Demonstrate knowledge and practice in **testing and evaluation** of software development projects.
- **Document** software projects with regard to specification requirements and implementation details.
- Demonstrate understanding of **methods and tools for validation and verification** in professional practice.
- **Communicate project work to an audience** with a general computer science background.

1.3 Honours project activities and amount of work

Your Honours Project consists of **three synoptic courses** running throughout the academic year:

- **F20PA**: Research Methods & Requirements Engineering.
- **F20PB**: Design and Implementation.
- **F20PC**: Project Testing and Presentation.

During those courses, you will have to:

- Carry out self-driven work for your project.
- Meet weekly with your supervisor.
- Attend lectures to aid your project.
- Complete deliverables in both Semesters.
- Participate in a Q&A session in the January Semester.

Your Honours project consists of 3x 15 SCQF level 10 credits, which involves at most **450 hours of work** during the two semesters. Careful planning and management of your time is essential for the success of your project.

The three courses in your Honours Project are **synoptic**, so your final mark will be released at the end of the January Semester. But, you will get formative feedback throughout both semesters from your supervisor, and partial summative feedback and marks at the end of the September Semester. If in need of more guidance or further feedback, please ask your supervisor or course coordinators.

1.4 Your Honours Project Course Team

For 2025/2026, the team consist of:

Dr. Stefano Padilla
(Edinburgh / Global Lead)

Dr. Radu-Casian Mihailescu
(Dubai Lead)

Prof. John See
(Malaysia Lead)

1.5 Honours Project Handbook and Canvas Pages

Please note that the handbook will be included below if reading Online, and a link to the Online pages will be included below if reading the handbook PDF:

https://canvas.hw.ac.uk/courses/32091

Both the **Handbook and Online pages will include similar mirrored information,** but in certain sections that require extra resources like for example documents, forms, data or videos, a link to the exact section will be added to the Handbook and the resource will be online (e.g. in the handbook text you will see a sentence like '*please see section 5.1 online for the complete resource*').

2 Important dates

2.1. Important dates information

The table below summarises the milestones and the deadlines. All deadline times are due at 15:30 UTC, and this might slightly change (+/- a couple of days) due to local Holidays – please work continuously towards the 'deadline week' instead of a date. Please see Section 6 for details on deliverables.

Date	Milestone	Deadline
Semester 1 Week 02	Project allocations completed	19/09/2025
Semester 1 Week 03	Project meetings and management start (D4)	22/09/2025
Semester 1 Week 07	Ethics submission deadline	24/10/2025
Semester 1 Week 11	First deliverables (D1 and D2)	20/11/2025
Semester 1 Week 15	Marks and Feedback released	19/12/2025
Semester 2 Week 11	Final Deliverables (D3)	26/03/2026
Semester 2 Week 11-14	Q&A Session (D5)	Organised by 2nd Marker
Semester 2 Week 14	Marks and Feedback released	17/04/2026
End of Semester 2	Expo (optional) (D6)	(TBC)

3 Projects

3.1 Introduction to an Honours Project

An Honours Project is a project with a computing aspect and a significant amount of effort that is driven by you and aided by a supervisor. The **theme or essence of the project should match your degree or degree specialisation**. The work for your project will take place during two Semesters.

3.2 Project Types

Projects can be of a wide spectrum, and your ideas might not fit a specific type of project. However, for clarity, below is a selection of some types of projects:

- A **technical project** centres on implementing and rigorously evaluating a non-trivial software artefact - such as a full-stack application, an operating system component, a developer tool, a simulator, or a robot subsystem. The project starts by selecting a clear research area and conducting a concise literature or landscape review to position the work, then eliciting and documenting requirements from stakeholders or domain needs. You proceed with preparation and feasibility analysis (including architecture, technology choices, risk assessment, and prototyping) to justify the approach, before designing and developing the application to a defensible, testable state. This is followed by systematic validation and evaluation using suitable methods (e.g., benchmarks, user studies, experiments, or comparative analyses). Finally, you analyse the resulting data, discuss limitations and implications, and compile evidence-based conclusions that demonstrate the artefact's performance and the project's scholarly contribution.

- A **hybrid (more machine)** project centres on implementing and rigorously evaluating a model- or data-centric system - such as a machine-learning solution, modelling framework, NLP pipeline, performance analysis system, or computer-vision application. It begins by defining the research area and reviewing relevant work, then eliciting concrete

requirements (task, data, constraints, success criteria). Preparation and feasibility work covers dataset sourcing and curation (including labelling and data governance/ethics), feature engineering, architecture and algorithm selection, baseline definition, or risk-reducing prototypes. You then develop and train the model or pipeline with reproducible experiments and versioned code/data. Evaluation uses appropriate metrics and methods (e.g., held-out tests, cross-validation, benchmarking, and, where relevant, human observers), comparing against baselines and ablations to assess performance, robustness, fairness, and generalisation. Finally, you analyse results and errors to surface insights, discuss limitations and implications, and present evidence-based conclusions about the system's effectiveness and scholarly contribution.

- A **hybrid (more human)** project centres on implementing and evaluating a human-facing system or application - such as an HCI prototype, cybersecurity experiment, exploratory game concept, or user-driven simulation. It begins by defining the research area and articulating the real-world issues, tasks, and requirements, grounded in prior work and stakeholder input. Preparation and feasibility work covers study design and ethics (e.g., consent, data protection), choice of measures and apparatus, recruitment strategy, and risk-reducing prototypes. You then develop a research probe or functional prototype to elicit behaviour and capture data in realistic use. User studies can be conducted with suitable methods (think-aloud, controlled experiments, field deployments, observations, or diaries) and clear success criteria. Finally, you analyse quantitative and qualitative data (e.g., statistical tests, SUS/NASA-TLX, thematic coding), triangulate findings, discuss limitations and implications, and compile evidence-based insights and conclusions like usability, security, and user impact.

- A **research-centric project** investigates a clearly defined, testable hypothesis through rigorous empirical methods. It starts by scoping the research area and positioning the work via a focused review, then formulating precise hypotheses and operational definitions. You design an appropriate methodology - often combining surveys, controlled experiments, and (where relevant) observation of human behaviour - with ethical approval, sampling strategy, instrumentation, and predefined success criteria. The study specifies an analytical framework and datasets. Data are analysed with suitable statistical or computational techniques (e.g., power analysis, effect sizes, model checks, error analysis) to test the hypothesis, probe mechanisms, and assess validity and reliability. Finally, you synthesise results into insights, discuss limitations and threats to validity, and present evidence-based conclusions that confirm, refine, or reject the hypothesis and articulate the work's scholarly contribution.

- A **mixture of all types** of projects investigates a computing-related topic and includes elements from the previous types mentioned above. Please consult with your supervisor for guidance.

3.3 Projects not allowed

For clarity, two project types are not permitted:

- **Pure research projects** whose sole aim is to "discover something new" through theory or literature review alone, or some artefact. Novel discovery is neither required nor suggested for Honours Projects.
- **Non-computing projects** that lack substantive practical use of computing technology - topics centred purely on, for example, business studies, policy, education theory, psychology, or general science without a concrete computational artefact, method, or data-driven system are not permitted.

3.4 Project System

The honours projects are managed through an online system available at:

https://projects.hw.ac.uk

The online project system allows you to look at staff-proposed projects or include your own project proposal. It also allows you to modify the title and abstract of your project. Please ensure that these are as accurate as possible. Changes you make to the title or abstract, or any changes to the supervisor or second reader (which would be made by the Project Coordinator), will be emailed to all parties concerned. Your application for ethical approval is also managed through the project system (see Section 5).

3.5 Allocations

Your choice of project should reflect the educational aims of your degree programme and should enable you to demonstrate the subject mastery for your programme. These can be found in your **programme handbook**.

To be allocated an Honours Project, you need a supervisor and a topic. There are two ways to get these.

- **Choosing a topic on offer:** A list of dissertation topics (titles and abstracts) offered by staff members is available from the honours project. Logging into the project system will show you a list of topics suitable for your degree. You should identify the projects that you find appealing and contact the staff members proposing them. The project system provides a link to allow you to email the proposer of a topic. Each staff member will discuss the project's availability with you. Once both you and a staff member are satisfied, the project can be allocated by the supervisor.

- **Proposing your own topic:** If you have your own idea for a dissertation, identify a member of staff who has the technical competence for supervising the project (ask the Honours Project Coordinator or your Personal Tutor to help you here if needed). Once you identify a potential supervisor, discuss your idea with them, especially:
    - Is your idea suitable for a good final year project?
    - Does this topic and proposed work support the degree program that you are studying for?

- Is the necessary equipment available, or can it be bought through the Student Equipment Fund?
- If any company or body outside the Department is involved, do they guarantee to commit sufficient time and resources?

If a member of staff agrees to supervise you, and the answer to all the questions above is yes, you can go on with your own dissertation. You will need to create a new project proposal and then have the staff member allocate the project to you.

3.6 Specialisations note

Do not forget that your project needs to be in the domain or be in an area related to your specialisation. If you are doing a project related to your specialisation, then please link your idea to your specialisation in the abstract or motivation.

3.7 Using the Project system and updating details

A guide about using the project system is available under this section.

Project manual details are available in Canvas in Section 3.7.

3.8 Changing your original project

You can change some of the details of the project while you research and develop (e.g. you find out a library or tool will not work for your project's aim and need to adjust your project), but you should be careful not to change the original idea much. It is strongly discouraged to change your topic mid-year, as you would need to redo most of the preparation work. It is preferable to analyse and discuss possible issues. Then, condense solutions and insights instead of giving up and changing the idea of your project.

3.9 Your project, your work

As a final reminder, please note that this is your project and work. Even though the original idea might have come from a member of staff, the project is yours – own it!

4 Supervision

4.1 Introduction

Supervisors are here to help you with your project, not to lead it or do the work for it. Supervision of projects varies from member of staff to member of staff. However, you should meet regularly with your project supervisor; typically, these would be small meetings during semester time (week 1-12). The structure of the project meetings will be defined by the supervisor, and may vary in format and style. Please remember as well, the meetings will depend on availability (illness/holidays).

The **minimum expected time** for supervision per week, depending on the structure, is:

- Individual meetings: at least 20 minutes.
- Group meetings: at least 1 hour (max group of four students).

These meetings should commence as soon as your project is allocated; it is your responsibility to contact your supervisor to arrange these meetings. You may agree on a mutually convenient fixed slot, which can be rearranged via email as required. If you are not going to attend a session, please inform your supervisor via email.

Project meetings are your opportunity to update your supervisor on your progress and get guidance for the future direction of your work. You will receive verbal feedback on your progress at these meetings and may also receive feedback on drafts of deliverables during the meeting; this is at the discretion of your supervisor. You can expect feedback on part of your deliverables, provided you give sufficient time (e.g. a week or more) to your supervisor to have a look at them and give you feedback.

Bulk revisions or requests for longer meetings before deadlines will be denied by supervisors. You should plan your work and work throughout the Semester.

4.2 Supervisor Expectations and Briefing Notes

Supervisors and students are expected to follow certain guidelines.

The complete Supervision and Staff expectations are available in Canvas in Section 4.2.

4.3 Experts Support

For 2025/26, we are trialling an extra method of support for your project work. A group of experts in different fields will be available during term time to aid you with more complex topics that might be related to your idea. The support will be announced in Canvas, and the sessions will be open to all students on a first-come, first-served basis. These experts will not replace the support from your supervisor, but instead enhance the support available to you.

Please note that the expert support will only be introduced in the Edinburgh campus for 2025/26.

4.4 Supervision Issues

In the rare cases that your supervisor might be unavailable (e.g. due to illness) or when you believe the supervision does not match your expectations, then please notify your Honours Project Coordinator (the earlier the better!). You can also mention any issues and get extra support in the tutorial sessions during term time. Do not forget the project is driven by you – ask for help, find solutions.

5 Ethics

5.1 Introduction

You need Ethical approval before conducting any experiments with participants. You also need to declare if you are not going to run experiments, and declare and follow any health and safety guidelines.

Work completed before ethics approval is granted will not be marked. In addition, if you have not submitted an ethics approval application before the September Semester deliverables deadline (S1 Week 11), you will receive 0 marks for those deliverables.

5.2 Ethical Approval

Ethical approval applications are made through the project system by completing the form available through "Project/Ethics Form". This form is also used to make a health and safety risk assessment for the project. There are two levels of ethical screening, depending on the project and its use of human participants. All students must complete the "Health and Safety Risk Assessment" section.

- **No human participants**: For projects where there are no participants, only the health and safety section will apply.
- **Human participants**: For all other projects involving participants, the full ethical approval form must be completed before any work with the human participants. The School's Ethical Coordinator must grant ethical approval before any work with participants is conducted.

It is your responsibility to keep your ethical approval correct throughout the year. If your work changes to involve more work with participants, you will need to update your Ethical Approval application and wait until it is approved before any work with participants starts.

The complete Ethical Approval guide is available in Canvas in Section 5.2.

5.3 Consent

In all cases involving human participants, you must give each subject a statement of what they are being asked to do and why.

Sample consent forms are available on Canvas in Section 5.3.

You should keep a digital copy of all completed consent forms in a safe place, and a sample form included as an appendix to your dissertation. Each participant must sign and date a consent form that indicates that they understand why they are participating in the experiment and that they are free to leave the experiment at any time. You should keep these consent forms safe – **more instructions about safekeeping forms in this section.**

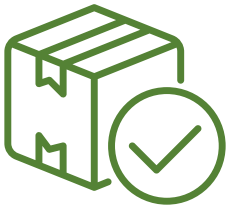
Any data gathered from experiments involving human subjects should be anonymised so that individuals cannot be identified. Only the anonymised form of data should be uploaded at the end of your project.

5.4 Health and Safety

All projects are required to complete the "Health and Safety Risk Assessment" section of the ethical approval form. For many projects, the assessment will be simple - only standard software is being used in an office environment, and no special safeguards are needed. If your project requires the use of specialist equipment, e.g. robots, eye trackers, etc., or the use of devices not in a standard office environment, e.g. use of mobile devices while moving around, then the risks should be identified and appropriate measures to mitigate these risks.

6 Deliverables

6.1 Introduction



You have various deliverables in both semesters; you will need to work throughout the semesters to complete these deliverables. Below is a description of the deliverables. If you need more information, please check the supplementation information linked below, or please ask your supervisor or coordinator. The deadlines related to deliverables are listed in *Section 2* and in the submission links in *Section 10*.

6.2 Assessors

Your **supervisor** will mark most of your work, and a **second marker** will also mark most of your work to ensure impartiality. Certain components where double marking is not reasonable will only be marked once (e.g. the professionalism components would be difficult for the second marker to assess fairly). Where there is double marking, if there is a significant difference between markers, a **third marker** will be requested to moderate the final mark. All assessments below will be integrated into your final mark (see Section 8.3 for marking rubrics).

6.3 Project Proposal and Research Document (D1)

The project proposal is a written document that will introduce the reader to your project, give them a sense of the motivation behind the idea, discuss the research carried out on the topic, describe the methodology or work plan (may include requirements) for the project, and explain how the project will be managed (e.g. plan, risks, issues). Below is an example structure for this deliverable. Please note that some of the sections can be slightly changed to accommodate your project, but be careful about the constrained mention below.

Front Matter	• **Title page:** please use and complete template page. • **Declaration:** please use and complete template declaration. • **Abstract:** a short description of the project and the main work to be carried out – probably between one and two hundred words. • **Table of Contant:** table including the all the sections. Make sure the start of the Main body section (introduction) starts at page number 1.
Main Body	• **Introduction**: summarising the context and motivation of the project, stating the aim and objectives of the project, identifying the problems to be solved to achieve the objectives, and sketching the organisation of the dissertation. • **Background Research**: discussing related work found in the technical literature and its relevance to your project. • **Methodology / work plan**: describe in detail the necessary methods, requirements or research questions that will be employed or be needed to complete the project. You should link these back to your project aim and objectives. If needed include suitable research questions, use cases, research methods that are going to be employed, stakeholder research, requirements, and / or Moscow analysis. • **Feasibility**: include a summary of preliminary work carried out in preparation for your project to validate the feasibility of your project. This includes design, evaluation strategy and preliminary work (e.g. focus groups, stakeholder information, tests of software, evaluation of tools, possible datasets or algorithms, and early prototypes) – this section will complement the information in your second deliverable. • **Conclusions:** short summary of the whole document.

Back Matter	• **References**: list complete details of all sources cited in the text.
	• **Project Management**: This section should include:
	  ○ **Gantt chart** (or plan) of activities that were carried out in the first semester, and future plan of activities to be carried out on the second semester.
	  ○ **Analysis of risks** with appropriate mitigation plans for the project.
	  ○ **PLES**: A well-researched consideration of any Professional, Legal, Ethical, and Social Issues pertinent to the project. (e.g. codes of conduct (BCS), codes of practice, standards, computer law, ethical decision making, intellectual property, social aspects, copyright, data protection, and so on).
	• **GenAI Summary:** this is a required section summarising the use of GenAI in your project and deliverables.
	• **Appendices:** include supplementary materials as appropriate, if in doubt, please consult with your supervisor. Useful appendices include additional screenshots, charts and information that does not fit in the main body of your document, it is discretionary, but complements the document.

You will be required to use the LaTeX or Word templates provided. Do not modify the format of these templates. Structure provided on top should be followed, and slight rearrangements of sections are possible, but please consult your supervisor first. **The maximum page limit for the Main Body is 14 pages**. The Front and Back Matter sections can be of any length. The final document should be a **PDF document**.

Project Proposal Templates are available on Canvas in Section 6.3.

6.4 Preparation and Feasibility Video (D2)

This deliverable consists of a showcase video showing and explaining your preparation work, and demonstrating that your project can be completed within the second semester. The maximum length for this video is **5 minutes** – any content after 5 minutes will not be marked. Instructions will be provided on how to create this deliverable.

Further information on the creation of this video on Canvas in Section 6.4.

6.5 Dissertation (D3)

This is your main deliverable, and it will detail your project development, evaluation, discussion and conclusions. This document will extend the previous Project Proposal deliverable, and new sections will only be marked (the previous sections will not contribute again to your mark, but you are welcome to update or modify the previous content if needed – e.g. the project changed slightly).

Front Matter	• **Title page:** please use and complete template page. • **Declaration:** please use and complete template declaration. • **Abstract:** a short description of the project and the main work to be carried out – probably between one and two hundred words. • **Table of Contant:** table including the all the sections. Make sure the start of the Main body section (introduction) starts at page number 1.
D1 Body	• **Introduction**: summarising the context and motivation of the project, stating the aim and objectives of the project, identifying the problems to be solved to achieve the objectives, and sketching the organisation of the dissertation. • **Background Research**: discussing related work found in the technical literature and its relevance to your project. • **Methodology / work plan**: describe in detail the necessary methods, requirements or research questions that will be employed or be needed to complete the project. You should link these back to your project aim and objectives. If needed include suitable research questions, use cases, research methods that are going to be employed, stakeholder research, requirements, and / or Moscow analysis. • **Feasibility**: include a summary of preliminary work carried out in preparation for your project to validate the feasibility of your project. This includes design, evaluation strategy and preliminary work (e.g. focus groups, stakeholder information, tests of software, evaluation of tools,

	possible datasets or algorithms, and early prototypes) – this section will complement the information in your second deliverable. • **Conclusions:** short summary of the whole document.
Main Body	• **Implementation and Contributions:** describe here in detail your implementation or work and your contributions. • **Evaluation:** detail here your testing, performance analysis, studies, results, validation and any other detail related to the evaluation of your project. • **Discussion and Conclusions:** discuss insights, limitations, achievements, future work, and conclude your project dissertation.

Back Matter	• **References**: list complete details of all sources cited in the text.
	• **Project Management**: This section should include:
	  ○ **Gantt chart** (or plan) of activities that were carried out in the first semester, and future plan of activities to be carried out on the second semester.
	  ○ **Analysis of risks** with appropriate mitigation plans for the project.
	  ○ **PLES**: A well-researched consideration of any Professional, Legal, Ethical, and Social Issues pertinent to the project. (e.g. codes of conduct (BCS), codes of practice, standards, computer law, ethical decision making, intellectual property, social aspects, copyright, data protection, and so on).
	• **GenAI Summary:** this is a required section summarising the use of GenAI in your project and deliverables.
	• **Project proposal and research changes:** this is a summary of any changes from D1 to D3, if any.
	• **Appendices:** include supplementary materials as appropriate, if in doubt, please consult with your supervisor. Useful appendices include additional screenshots, charts, and information, that does not fit in the main body of your document, it is discretionary, but complements the document. *Also your final dissertation, please include here also Consent Form example, Questionaries and possible raw data related to your evaluation.*

There is no recipe for a "perfect" dissertation; the above is a set of good practice guidelines to structure your document. You are strongly encouraged to ask your supervisor for examples of good-quality dissertations from previous years or to browse the past projects available in Canvas (please note that the format and length can change from year to year). Use the marking rubrics to guide you on which areas you will be assessed.

Please note that some of the feasibility sections or work might be included in the implementation part to make the narrative and structure in your final dissertation flow better. **If you do change parts from your D1 body, then please summarise these in the section before the appendices.**

You will be required to use the LaTeX or Word templates provided. Do not modify the format of these templates. Structure provided on top should be followed, and slight rearrangements of sections are possible, but please consult your supervisor first. **The**

maximum page limit for the Main Body is 20 pages. The Front and Back Matter sections can be of any length. D1 Body section should not exceed the previous limit, and please note that you will not be awarded more marks for this section. The final document should be a **PDF document**.

Project Proposal Templates are available on Canvas in Section 6.5.

6.6 Project Management (D4)

You will be required to keep a record of the work carried out throughout the year. The format and style of this will be decided by your supervisor (as it is common practice at work). Project Management can include various methods and tools, such as:

- **A shared folder** that includes a record of your work, plans, code, data and drafts. This can be a protected Office 365 folder.
- **A shared repository** that includes a record of your work, plans, code, data and drafts. This can be a protected GitLab project.
- **An online tool** that includes a record of your tasks, drafts and any other information suitable for the tool. This can only be free to use tools like Notion or Trello.
- **A combination** of any of the above.

Please make sure you share access with your Supervisor and Second Marker as soon as possible. **You will be awarded marks** for the upkeep, structure and content of your project management.

For more information and use information, please check Canvas Section 6.6.

6.7 Q&A Session (D5)

For this deliverable, you will have the opportunity to communicate, show and demo your results to your second maker. The session will last around 15 minutes, and it will include sufficient time for questions and answers from your second marker. Please prepare a set of slides to show your work, or even better, demonstrate your work live. The session will be organised by your second marker, and your supervisor will be invited to it. The session will take place online unless requested otherwise. You will be awarded marks for this deliverable.

For more information, please visit the Canvas Section 6.7.

6.8 Expo Event (D6)

An **optional** session to showcase your work will be organised for you. You are strongly recommended to come and show your work. This session is open to all, and you are welcome to invite friends and family. Members of our Industrial Steering group will also be invited, so it is a good occasion to meet industry leaders. There will be refreshments, and it will be a great opportunity to wrap up your effort throughout the year. The Expo event will run at different locations and times for each campus and the format will change.

Please check Canvas Section 6.8 for campus-specific information.

6.9 Final mark calculation

Your final mark for your honours project is determined as follows:

- 15% **Project Proposal and Research** (D1 and D2) (Double Marked)
- 10% **Project Preparation and Feasibility** (D1 and D2) (Double Marked)
- 5% **September Semester Professionalism** (D4 and weekly meetings) (Supervisor Marked)

- 30% **Implementation and Contribution** (D3) (Double Marked and Final Mark Agreed)
- 15% **Evaluation** (D3) (Double Marked and Final Mark Agreed)
- 15% **Communication** (D5) (Second Marker marked)
- 10% **January Semester Professionalism** (D4 and weekly meetings) (Supervisor Marked)

Late submission will be penalised according to the University Policy on Scheduling of Coursework and Late Submission. This means a **standard 30% deduction from the mark awarded will be applied up to a maximum of five working days**.

6.10 Notes

Please note that in the case that there is a doubt in the contribution of your work, your markers can request an extra Viva session where you will need to go through and defend your work. Failure to attend this extra session will result in your work being reported for academic discipline.

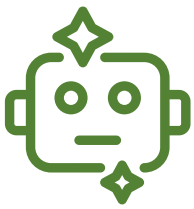
7 Academic Integrity

7.1 Intro

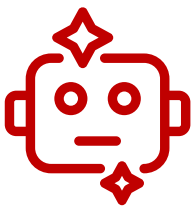
In this section, you will find information about the use of artificial intelligence, academic misconduct, ethical misconduct, intellectual property, and mitigating circumstances.

7.2 Use of AI

In short, the use of generative AI will be allowed for research and to find and question sources and materials in line with modern research methods.



You will not be able to present work generated or written by GenAI as their own (e.g., written text, charts, algorithms, data, summaries, images, resources, conclusions, experimental data, requirements, plans and comparisons).



You will be able to use assistive tools, including GenAI tools for spelling and grammar checking (e.g. Microsoft Word or Grammarly) and GenAI tools assisting code completion and optimisations (e.g. Visual Studio Copilot). Please note that large pieces of text or code generated (e.g. full paragraphs and code functions) using GenAI will be considered as being generated or written not by you and will be reported for academic misconduct. Good project management using versioning and a tracking system can help reduce any doubts about your contributions.

For clarity and to ensure compliance, the use of generative AI will be defined for each deliverable.

- **Project Proposal and Research**:
    - GenAI language support: Where English is not your first language, you may use GenAI to translate the assessment instructions or other relevant content. You may not use GenAI to translate your assessment answers; you must write them in English, as HW requires all work to be completed in English and to be your own work. No GenAI-generated content is permitted in your assessment submission (e.g. full paragraphs, large sections of code (E.g. a class) or a significant amount of output).
    - GenAI-assisted editing and proofreading: You may use GenAI to improve your work, e.g. enhancing spelling, grammar, tone, and clarity. You are not permitted to use GenAI to generate new content.
    - GenAI-assisted idea generation: You may use GenAI to assist you in developing ideas, structures (e.g. headings, bullet points, outline plans), and identify potential research themes or journal articles in your preparation of your assessment, but no GenAI-generated content is permitted in your assessment submission.
    - GenAI co-pilot: You may use GenAI in assistive tools (e.g. Visual Studio autocomplete and co-pilot). Large pieces of generated text or code (e.g. full paragraphs and functions) using GenAI will not be allowed.

- **Project Preparation and Feasibility Video**:
    - GenAI language support: Where English is not your first language, you may use GenAI to translate the assessment instructions or other relevant content. You may not use GenAI to translate your assessment answers; you must write them in English, as HW requires all work to be completed in English and to be your own work. No GenAI-generated content is permitted in your assessment submission (e.g. full paragraphs, large sections of code (E.g. a class) or a significant amount of output).
    - GenAI-assisted editing and proofreading: You may use GenAI to improve your work, e.g. enhancing spelling, grammar, tone, and clarity. You are not permitted to use GenAI to generate new content.

- **Dissertation**:
    - GenAI language support: Where English is not your first language, you may use GenAI to translate the assessment instructions or other relevant content. You may not use GenAI to translate your assessment answers; you must write them in English, as HW requires all work to be completed in English and to be your own work. No GenAI-generated content is permitted in your assessment submission (e.g. full paragraphs, large sections of code (E.g. a class) or a significant amount of output).
    - GenAI-assisted editing and proofreading: You may use GenAI to improve your work, e.g. enhancing spelling, grammar, tone, and clarity. You are not permitted to use GenAI to generate new content.
    - GenAI-assisted idea generation: You may use GenAI to assist you in developing ideas, structures (e.g. headings, bullet points, outline plans), and identify potential research themes or journal articles in your preparation of your assessment, but no GenAI-generated content is permitted in your assessment submission.

- GenAI co-pilot: You may use GenAI in assistive tools (e.g. Visual Studio autocomplete and co-pilot). Large pieces of generated text or code (e.g. full paragraphs and functions) using GenAI will not be allowed.

- **Project Management**:
  - GenAI language support: Where English is not your first language, you may use GenAI to translate the assessment instructions or other relevant content. You may not use GenAI to translate your assessment answers; you must write them in English, as HW requires all work to be completed in English and to be your own work. No GenAI-generated content is permitted in your assessment submission (e.g. full paragraphs, large sections of code (E.g. a class) or a significant amount of output).
  - GenAI-assisted editing and proofreading: You may use GenAI to improve your work, e.g. enhancing spelling, grammar, tone, and clarity. You are not permitted to use GenAI to generate new content.

- **Q&A Session**:
  - GenAI language support: Where English is not your first language, you may use GenAI to translate the assessment instructions or other relevant content. You may not use GenAI to translate your assessment answers; you must write them in English, as HW requires all work to be completed in English and to be your own work. No GenAI-generated content is permitted in your assessment submission (e.g. full paragraphs, large sections of code (E.g. a class) or a significant amount of output).
  - GenAI-assisted editing and proofreading: You may use GenAI to improve your work, e.g. enhancing spelling, grammar, tone, and clarity. You are not permitted to use GenAI to generate new content.

- **Expo Event**:
  - GenAI language support: Where English is not your first language, you may use GenAI to translate the assessment instructions or other relevant content. You may not use GenAI to translate your assessment answers; you must write them in English, as HW requires all work to be completed in English and to be your own work. No GenAI-generated content is permitted in your assessment submission (e.g. full paragraphs, large sections of code (E.g. a class) or a significant amount of output).
  - GenAI-assisted editing and proofreading: You may use GenAI to improve your work, e.g. enhancing spelling, grammar, tone, and clarity. You are not permitted to use GenAI to generate new content.

Important notes:

Use of GenAI will need to be summarised in a new section in all deliverables.

You will need to check the validity of any generated materials (e.g. citations and suggestions). Fake or false resources will be reported for academic misconduct.

https://heriotwatt.sharepoint.com/sites/skillshub/SitePages/Falsifying-references.aspx

7.3 Plagiarism and Collusion

Deliverables must be written in your own words, code must be your own, and any other materials presented in the deliverables must be yours (e.g. charts). If materials in the deliverables have been taken from other sources, these sources must be referenced appropriately and should be open for use.

Failure to reference work that has been obtained from other sources or to copy the words and code of another source or student is plagiarism, and if detected, this will be reported to the School's Discipline Committee. If a student is found guilty of plagiarism, the penalty could involve voiding their Honours Project.

Please note that **your text and materials** used in your September Semester deliverables can be used for your final deliverables. These might or can be flagged by the plagiarism checker system when you submit your final dissertation, but this **will not count towards plagiarism or self-plagiarism.**

You must never give hard or soft copies of your work to another student. You must always refuse any request from another student for a copy of your work.

Sharing work with another student is collusion, and if detected, this will be reported to the School's Discipline Committee. If found guilty of collusion, the penalty could involve voiding your Honours Project course.

Please note the University Misconduct Policy for plagiarism:

https://www.hw.ac.uk/uk/students/doc/Student-Academic-Misconduct-Policy.pdf

7.4 Intellectual Property

All the work created in your project is your own property unless specified otherwise (e.g. using research data from a research project, or working with a company).

7.5 Conflict of Interest

To protect the integrity and independence of assessment, any actual, potential, or perceived conflict of interest between a student, project supervisor and a proposed second marker must be noted to the coordinator at the earliest opportunity and before marking begins. Where a conflict is identified the student-supervisor–second–marker pairings will be avoided wherever reasonably possible. If, in circumstances, avoidance is impracticable or it is decremental (e.g., due to specialist expertise or staffing constraints), the coordinator will document the risk and put in place proportionate safeguards.

7.6 Mitigating Circumstances Requests

If you have any issues that have resulted in a decrement in your work, please complete a Mitigating Circumstances request as soon as possible. This will be considered by the Mitigating Circumstances Board for discretionary adjustments (e.g. delaying your submission or re-attending the Honours Project again). Fake or incorrect MC requests will be reported to the School's Discipline Committee.

8 Marks and feedback

8.1 Introduction

In this section, a summary of the marks will be given. Marking rubrics will be detailed, and the timeline of feedback will be linked.

8.2 How marks are calculated

Below is a summary of the marking blocks for your Honours project. For full details, please check the marking rubrics in *Section 8.3*.

Project Proposal and Research (15)	
0-5	Incomplete research.
6-9	Good research with gaps.
10-15	Exceptional research.
Preparation and Feasibility (10)	
0-4	Incomplete or flawed preparation.
5-6	Demonstrated preparation and feasibility, but with issues or gaps.
7-10	Strong feasibility and preparation.
Implementation and contribution (30)	
0-11	Incomplete project with substantial flaws.
12-20	Completed project with some gaps.
21-30	Challenging project, completed and good practice.
Evaluation (15)	
0-5	Missing evaluation.
6-9	Evaluation effort is apparent, but gaps or flaws found.
10-15	The project was successfully evaluated.
Communication (15)	
0-5	Failed to communicate work.
6-9	Answered questions, professional, and show work but missing parts, or answers.
10-15	Well answered, professional, organised, showcase work.
Professionalism (S1 5 + S2 10 = 15)	
0-5	Missing records, management and professionalism.
6-9	Good at keeping records, management, attendance and professional but gaps found.
10-15	Good at keeping records, management, attended meetings, professional behaviours.

8.3 Marking rubrics

Below are the marks for all the deliverables. Please note that deliverables are not matched to marking blocks. Use the marking rubrics to tune your deliverables accordingly for the best results.

September Semester:

Project Proposal and Research (15 marks)		
A+ 85%-100%	12.75 - 15.00	All as range below and **overall quality meets publication standards**.
A 70%-84%	10.50 - 12.75	**Exceptional research**: a clear, well-motivated question; a thorough and critical literature review with only minor omissions; an appropriate, well-argued methodology/work plan; good research in terms of tools/methods; interpretations and preparation work connects convincingly to the literature; good awareness of limitations and ethics; well-structured, well-referenced writing. Work matches typical expectations for a first-class undergraduate honours project.
B 60%-69%	9.00 - 10.50	**Competent Research**: The question and motivation are stated and generally clear; the literature review covers core sources but lacks depth or critical synthesis; the chosen method/tools are broadly appropriate, but justification is uneven; interpretations and preparation work are plausible but not deeply argued; limitations/ethics are addressed briefly; writing and referencing are useable with some inconsistencies. Gaps found in the report.
C 50%-59%	7.50 - 9.00	
D 40%-49%	6.00 - 7.50	**Borderline pass**: a basic attempt at research with a vague or under-developed question; a limited, largely descriptive literature review with notable gaps; a simplistic or weakly justified tools/methods; scarce reflection on limitations or ethics; patchy writing and referencing. Meets the minimum evidence of research competence.
E-F (Fail) 0%-39%	0.00 - 6.00	**Insufficient research**: no coherent research question or motivation; little or no relevant literature; methodology/work plan/tools absent or inappropriate; claims unsupported by evidence; serious issues with ethics, integrity, or referencing. Not fit for purpose.

Preparation and Feasibility (10 marks)		
A+ 85%-100%	8.50 - 10.00	All as range below and preparation work **goes beyond expectations**.
A 70%-84%	7.00 – 8.50	**Strong preparation and feasibility**: Good showcase of preparation work; methods/tools are justified against alternatives; feasibility is demonstrated with strong evidence (e.g., pilot data, benchmarks, prototype results, or calculations); plan is realistic with clear dependencies and contingencies; risks are quantified with specific mitigations and contingency

		paths; professional, legal/regulatory, ethical, and social considerations are fully addressed; success criteria is defined and argued well; in overall it falls in the normal expected level for a first-class honours project.
B 60%-69%	6.00 – 7.00	**Adequate preparation with noticeable gaps**: core preparation work is present, but feasibility is asserted more than demonstrated; preliminary evidence is limited, generic, or partially relevant; the plan is workable but lacks detail on tasks, dependencies, or contingencies; risk analysis is identified but not quantified or matched to concrete mitigations; PLES issues are acknowledged but treated briefly; success criteria are imperfectly specified or only partly measurable.
C 50%-59%	5.00 – 6.00	
D 40%-49%	4.00 – 5.00	**Borderline pass focused on the minimum**: preparation is present but superficial or incomplete; feasibility is weakly justified with little to no preliminary evidence; the plan is unrealistic in places, with missing resources/dependencies and vague timelines; risks are listed without meaningful mitigations; PLES issues are mentioned only in passing; success criteria are unclear; overall preparation would require significant revision before a project could start confidently.
E-F (Fail) 0%-39%	0.00 – 4.00	**Insufficient preparation**: major elements are missing (e.g. feasibility evidence, timeline, risks, or PLES considerations); the plan does not show that the project can be delivered with available time and resources; success criteria are absent or not usable; feasibility is not demonstrated, so the project cannot be regarded as ready to begin.

Proposal and Research - Professionalism (5 marks)		
A – A+ 70%-100%	3.50 – 5.00	**Great** at keeping records, project management, attended meetings, professional behaviours.
B 60%-69%	6.00 – 7.00	Good at keeping records, project management, attendance and professional but **gaps found**.
C 50%-59%	5.00 – 6.00	
D 40%-49%	4.00 – 5.00	
E-F 0%-39%	0.00 – 4.00	**Missing** records, management and professionalism.

January Semester:

Implementation and contribution (30 marks)		
A+ 85%-100%	25.50-30.00	All as previous range, and quality of work and implementation includes a **contribution to the field, great potential or impact beyond the project.**
A 70%-84%	21.00-25.50	**A challenging, well-executed implementation with excellent practice**: A good challenge with appropriate tools and techniques, clear documentation, meaningful figures/code snippets, comprehensive tests, and a transparent repository/issue history showing an iterative process; development was rigorous and interpreted critically; limitations and trade-offs are discussed. Contribution is strong (substantial improvement or high-quality adaptation), even if not fully novel. Indicative effort aligns with ≈200–300 hours.
B 60%-69%	18.00-21.00	**A complete but modest implementation:** core functionality works and is explained, with reasonable documentation and deliverables. Some development, methodology/work plan or presentation flaws persist (gaps in testing, performance, or methodology). Contribution is primarily competent, but issues are apparent. Evidence shows steady but not systematic iteration. Effort ≈100–200 hours.
C 50%-59%	15.00-18.00	
D 40%-49%	12.00 – 15.00	**A simple implementation with major gaps**: key features incomplete, limited or ad-hoc use of tools/methods. Documentation and evidence organisation are thin, and the contribution is minor or unclear. Work shows only partial iteration and weak justification. Indicative effort ≈80–100 hours.
E-F 0%-39%	0.00 - 12.00	**Implementation is largely incomplete**: little demonstrable development, minimal or inappropriate use of tools/methods, and disorganised or missing evidence. No meaningful contribution is shown. Indicative effort <80 hours.

Evaluation (15 marks)		
A+ 85%-100%	12.75 - 15.00	All as previous range, and the project was successfully validated using correct **and using numerous methods**.
A 70%-84%	10.50 - 12.75	**Strong evaluation**: systematic and mostly correct methods; a clear test plan with at least one sound validation approach and relevant comparisons; user or stakeholder assessment is appropriate and well-motivated; results are coherent and support the claims, with only minor gaps or missed opportunities for deeper analysis. The project was successfully evaluated.

B 60%-69%	9.00 - 10.50	**Adequate evaluation**: core tests completed, and results reported, but parts of the method are inappropriate or missing; validation and comparisons are limited or uneven; user study (if any) is small or weakly justified; analysis is largely descriptive; gaps and flaws reduce confidence in the conclusions, though effort is evident.
C 50%-59%	7.50 - 9.00	
D 40%-49%	6.00 - 7.50	**Borderline pass**: evaluation attempted but undermined by design or execution flaws; tests are sparse or poorly controlled; little meaningful validation or comparison; results are unclear or weakly interpreted; minimal evidence that the solution meets its aims.
E-F 0%-39%	0.00 - 6.00	**Insufficient**: evaluation largely absent; key elements such as testing, validation, or user assessment are missing; results are missing, trivial, or uninterpretable; cannot judge whether the aims were met.

Communication (15 marks)		
A+ 85%-100%	12.75 - 15.00	All as A range, and quality of Q&A **matches highest professional standards.**
A 70%-84%	10.50 - 12.75	**Professional presentation and showcase**: Clear and well-organised presentation with supportive visuals; minor lapses in flow or phrasing only. Professional conduct throughout. Questions are answered correctly and confidently, with only occasional need for brief clarification or reference to notes; the work is showcased effectively.
B 60%-69%	9.00 - 10.50	**Communication is adequate but uneven**: Structure can be unclear or jargon-heavy; visuals or explanations omit some steps. Professionalism generally acceptable but inconsistent. Most questions are answered, but there are gaps, errors, or reliance on prompting, and parts of the work are not clearly shown.
C 50%-59%	7.50 - 9.00	
D 40%-49%	6.00 - 7.50	**Threshold pass**: Delivery is frequently unclear or disorganised, with limited signposting and weak or missing visuals; timing/pacing is problematic. Answers are brief, vague, or off-target and often require prompting; the student struggles to explain or locate parts of their own work.
E-F 0%-39%	0.00 - 6.00	**Fail**: Communication fails to convey the project. Presentation is disorganised or unprofessional; visuals are absent or unusable. The student cannot answer fundamental questions or show the relevant work, unprofessional.

Project - Professionalism (10 marks)		
A – A+ 70%-100%	7.00 – 10.00	**Good** at keeping records, project management, attended meetings, professional behaviours.
B 60%-69%	6.00 – 7.00	Good at keeping records, project management, attendance and professional but **gaps found**.
C 50%-59%	5.00 – 6.00	
D 40%-49%	4.00 – 5.00	
E-F 0%-39%	0.00 – 5.00	**Missing** records, management and professionalism.

8.4 Feedback

Summative feedback and marks will be provided using the rubrics described before. Please use the feedback in the September Semester to improve your work in the final deliverables. For a full description of the dates when the feedback will be released, please see *Section 2*. **Formative feedback** will take place during the supervision meetings throughout your academic year.

8.5 Degrees

Your final degree mark is determined as follows:

- **BSc Computer Science and BSc Computer Systems.**
  - 30% Honours Project
  - 50% Fourth year taught courses
  - 20% Third year courses
- **BSc Computing Science**
  - 30% Honours Project
  - 50% fourth year taught courses
  - 20% Third year courses
- **MEng Software Engineering**
  - 40% Fifth-year courses
  - 25% Fourth year taught courses
  - 25% Honours Project
  - 10% Third year courses

For more information, please consult your student **Programme handbook**.

9 Resources

9.1 Intro

Here you will find information about your complementary lectures, available resources and support mechanisms.

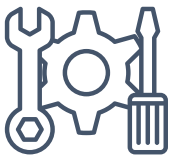
9.2 Description of Lectures

The proposed lecture blocks (around 1 hour each) per week include the ones below. Please note that not all of them will be available in all campuses, and the order of delivery might change.

L1. **Introduction**: Welcome, dissertation details, selecting a project, supervisors, assessment details, list of staff, Q&A. L2. **Expectations**: AI, supervisor / student expectations, project tracking, etc.	L3. **Academic integrity**: Plagiarism, misconduct, etc. L4. **Wellbeing**: Re-introduce wellbeing services, counselling, disability services, values, report it, personal tutors, etc.
L5. **Project management**: Research project, project general and people.	L6. **Literature search**: Search, citing and resources. L7. **Modern research**: Examples using AI tools, the good, the bad and the unethical.
L8. **Ethics**: Studies, recruitment, participants, consent, personal data, databases, health and safety, concerns, process.	L9. **Experimental design**: Design, experiments, human participants, basic statistical analysis.
L10. **Pitfalls**: Structure, research, ugly truth, managing your supervisor, back work, time management, sleep, expectations, etc.	L11. **Technical writing**: Proposal vs dissertation, methodology, requirements, writing style, references, etc. L12. **Document preparation**: intro, overleaf, structure, signposting, images, code, tools.
L13. **Careers**: Careers service.	L14. **Communication**: Selling your idea, pitching, selling, presentations, expo, etc.

Blocks after the consolidation week will either include Q&A tutorials or invited industrial speakers.

9.3 Resources



Resources are available per campus, and you can request them in the September Semester for equipment or tools.

For more information and updates, please visit the Canvas Section 9.3.

9.4 Extra Support Mechanism: Maths Gym, Code Clinic and English Gym.

Please note that we have available extra resources to help you with your Coding, Maths and English. These depend on the campus, so please check the updated information below.

For more information and updates, please visit the Canvas Section 9.4.

10 Submission Links

Submission links and instructions will be provided in this section in Canvas.

11 Lecture Materials

Lecture slides and extra content related to the delivery of resources will be provided in this section.

12 Updates, attributions and Versioning

12.1 Attributions

- Icons from the Noun Project: https://thenounproject.com

12.2 Version change and updates

- V1.0: first release to students.