

Honours Project

F20PA / F20PB / F20PC: Introduction

Overview

- This is an **individual project** showing self-initiative
- The project runs **throughout** the whole academic year
- Honours Projects consist of 3x courses:
 - F20PA: Research Methods and Requirements Engineering
 - F20PB: Design and Implementation
 - F20PC: Project Testing and Presentation
- You can **choose a project** from those suggested, or propose your own
- Your project topic **needs to match** your degree and specialisation
- You will be **supported by a** member of staff – they will be your supervisor!

your project, your work - own it!
(with supervisor's support)

September semester (F20PA)

Scoping and Research

- Find and discuss motivation for the project
- Identify relevant sources, techniques, tools, etc.
- Research and study literature and apply critical thinking
- Propose tools, languages, frameworks, and data to use

Preparation and Feasibility

- Complete preparation work and check for feasibility
- Plan and think about the implications of completing the project (risks, issues, ethics etc.)

Management and Professionalism

- Set up project management tools
- Regularly meet and work with your supervisor
- Communicate your project proposal, research, preparation, feasibility and plan

January semester (F20PB/PC)

Implementation and Contributions

- You should already know what you need to do
- Complete the tasks and work needed
- Follow and refine your plan

Evaluation and Conclusions

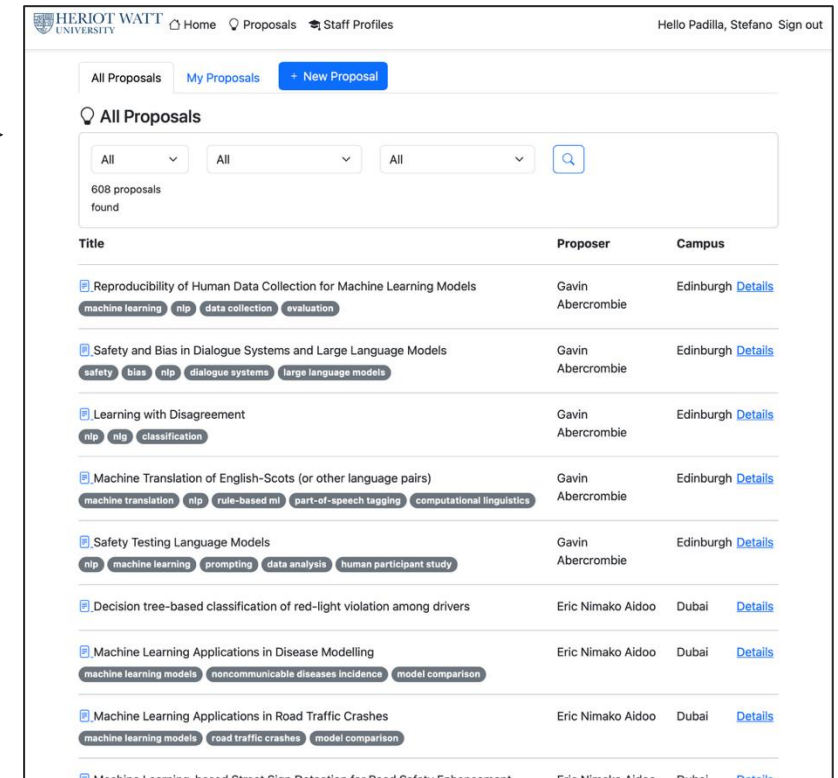
- Evaluate your project – did you complete your aim?
- Find insights and discuss your results
- Reflect on what you did

Communication and Professionalism

- Continue meetings with your supervisor
- Make sure you stay on track
- Communicate project results, evaluation and conclusions

Choosing your project

- **Choose an existing proposal from a staff member**
 - See the list on the project system →
 - Make sure the staff member is based in Edinburgh
 - Check with the member of staff
 - Complete online allocation with the member of staff
- **Or propose your own**
 - Outline your idea (aim, motivation, some details)
 - Find a member of staff who will supervise it
 - Agree scope is suitable for an Honours project
 - Add your proposal to the project system



The screenshot shows the 'All Proposals' page on the Heriot Watt University project system. The page has a header with the university logo, navigation links (Home, Proposals, Staff Profiles), and a user greeting (Hello Padilla, Stefano Sign out). Below the header, there are tabs for 'All Proposals', 'My Proposals', and a '+ New Proposal' button. A search bar is present with three dropdown menus set to 'All' and a search icon. Below the search bar, it says '608 proposals found'. The main content is a table with columns 'Title', 'Proposer', and 'Campus'. Each row represents a proposal, with a checkbox on the left, the title, proposer's name, campus, and a 'Details' link. Some rows have topic tags below the title.

	Title	Proposer	Campus	
☒	Reproducibility of Human Data Collection for Machine Learning Models machine learning nlp data collection evaluation	Gavin Abercrombie	Edinburgh	Details
☒	Safety and Bias in Dialogue Systems and Large Language Models safety bias nlp dialogue systems large language models	Gavin Abercrombie	Edinburgh	Details
☒	Learning with Disagreement nlp nlp classification	Gavin Abercrombie	Edinburgh	Details
☒	Machine Translation of English-Scots (or other language pairs) machine translation nlp rule-based ml part-of-speech tagging computational linguistics	Gavin Abercrombie	Edinburgh	Details
☒	Safety Testing Language Models nlp machine learning prompting data analysis human participant study	Gavin Abercrombie	Edinburgh	Details
☒	Decision tree-based classification of red-light violation among drivers	Eric Nimako Aidoo	Dubai	Details
☒	Machine Learning Applications in Disease Modelling machine learning models noncommunicable diseases incidence model comparison	Eric Nimako Aidoo	Dubai	Details
☒	Machine Learning Applications in Road Traffic Crashes machine learning models road traffic crashes model comparison	Eric Nimako Aidoo	Dubai	Details

<https://projects.hw.ac.uk>

Not choosing your Project

- **If you're unable to find a supervisor by the end of Week 2**
 - We will allocate one to you in Week 3
- **However, it's much better to find one yourself**
 - They're likely have a better fit to your interests
 - You'll still need to propose and scope your project, which will cause further delay
- **If you've not started looking yet, please start now**
 - If you leave it until the end of Week 2, the best projects will be gone!

Types of projects

Projects can be of a wide spectrum – not all ideas fit these!

- **Technical - Implementation and evaluation of some software**
(e.g. a full-stack product, OS component, software tool, simulator, robot component)
 - Research area
 - Identify requirements
 - Preparation and feasibility work
 - Develop application
 - Perform validation and evaluation
 - Analyse data and compile conclusions

Types of projects

Projects can be of a wide spectrum – not all ideas fit these!

- **Research-centric - Investigate research hypothesis**
(e.g. probe / prove idea, controlled studies, testing concept, system / method research)
 - Research area
 - Surveys and experiments
 - Observe human behaviour
 - Define hypothesis
 - Analyse framework and datasets
 - Analyse and discover insights

Types of projects

Projects can be of a wide spectrum – not all ideas fit these!

- **Hybrid (more machine) - Implementation and evaluation model/data centric system**
(e.g. ML System, modelling, NLP pipeline, performance system, computer vision app)
 - Research area
 - Identify requirements
 - Preparation and feasibility work
 - Develop a model or data-centric system
 - Perform evaluation (performance, possibly with observers)
 - Analyse data and discover insights.

Types of projects

Projects can be of a wide spectrum – not all ideas fit these!

- **Hybrid (more human) - Implementation and evaluation of a system/user application**
(e.g. HCI system, cybersecurity experiment, explore game idea, user-driven simulation)
 - Research area
 - Identify issues and tasks / requirements
 - Preparation and feasibility work
 - Develop probe
 - Perform user studies
 - Evaluate data and compile insights / conclusions

Not types of projects

(X) Pure research

- discover something new is not required or recommended

(X) Non-computing

- you require practical work of some sort using computing/IT technology

(X) Wrong topic for your degree

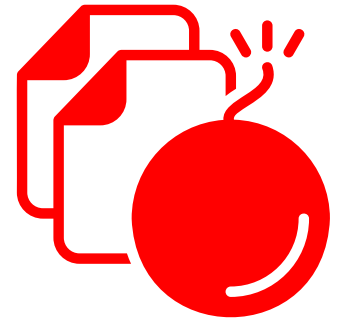
- If you're doing a specialism (e.g. cybersecurity), make sure the topic is relevant

Timeline

- **September Semester**
 - Weeks 1 – 10: Meetings with supervisor
(continuous work – don't pack meetings at the end or leave to before a deadline)
 - Weeks 1 – 2: Choose your project and supervisor
 - Week 3: All should have a project and a supervisor
 - Week 7: Deadline for submission of ethics
 - Week 11 – Submission of deliverables
 - Start of January semester – Marks and feedback released
- **January Semester**
 - Weeks 1-10: Work on your project and update your supervisor
 - Week 11: Submission of deliverables
 - Week 11-13: Q&A Session
 - Week 14-15: TBC Expo (optional)
 - Week 15: Marks and Feedback released

Deliverables

- **Week 11 - September Semester**
 - Project proposal and research (a written document, worth 15%)
 - Preparation and feasibility (a video, worth 10%)
- **Week 11 – January Semester**
 - Project implementation, contributions and evaluation (dissertation, code, results and data, worth 45%)
 - Q&A session (session to present work and answer questions, worth 15%)
- **Throughout the year**
 - Meet with your supervisor!
 - Manage and keep track of your work (GitLab, Trello, diary, etc)



Don't chase deadlines



Build steady momentum toward the finish line!

Support lectures

- **Week 1**
 - Literature search (Lucrezia Gaion)
- **Week 2**
 - Project management and doing modern research (me again)
 - Wellbeing services (Artemis Andreou)
- **Week 3**
 - Careers (Lindsey Wilson, Anna Brown), Experimental design (Theo Georgiou)
- **Week 4**
 - Common pitfalls (Christian Dondrup), Ethics (Marta Romeo)
- **Week 5**
 - Technical writing (Pierre Le Bras)
 - Communication and entrepreneurship (Alistair McConnell)

Lots of information on Canvas

▼ 1. Introduction	1.1 Welcome to your Honours Project 1.2 Specifications and Learning Outcomes 1.3 Honours project activities and amount of work 1.4 Your Honours Project Course Team - Tell us what you think of this course AY26-27	3.6 Specialisations note 3.7 Using the Project system and updating details 3.8 Changing your original project 3.9 Your project, your work	▼ 6. Deliverables	▼ 7. Academic Integrity
▼ 2. Important Dates	2.1. Important dates information	▼ 4. Supervision	6.1 Introduction 6.2 Assessors 6.3 Project Proposal and Research Document (D1) 6.4 Preparation and Feasibility Video (D2) 6.5 Dissertation (D3) 6.6 Project Management (D4) 6.7 Q&A Session (D5) 6.8 Expo Event (D6) 6.9 Final mark calculation 6.10 Other things to be aware of	7.1 Introduction 7.2 Use of AI 7.3 Plagiarism and Collusion 7.4 Intellectual Property 7.5 Conflict of Interest 7.6 Mitigating Circumstances Requests
▼ 3. Projects	3.1 Introduction to an Honours Project 3.2 Project Types 3.3 Projects not allowed 3.4 Project System 3.5 Allocations	4.1 Introduction 4.2 Supervisor Expectations and Briefing Notes 4.3 Experts Support 4.4 Supervision Issues	▼ 7. Academic Integrity	▼ 8. Marks and Feedback
		▼ 5. Ethics	7.1 Introduction 7.2 Use of AI 7.3 Plagiarism and Collusion	8.1 Introduction 8.2 How marks are calculated 8.3 Marking rubrics 8.4 Feedback 8.5 Degrees
		5.1 Introduction 5.2 Ethical Approval 5.3 Consent 5.4 Health and Safety		▼ 9. Resources

If you have any issues?

- Projects run throughout the whole year – so **issues are rare!**
- Almost all projects are completed without issues.
- **Raise any issues as soon as possible** with your supervisor or coordinators (if issues with your supervision).
- If you have Mitigating Circumstances that affected a significant amount of your work, then the MC board will decide on the fairest mitigation (inc. an extended submission that will delay your graduation – rare and not ideal).
- **There are no resits for your Honours Project!**



Common Questions

- **Do I have to choose one of the available proposals?**
 - No, you can propose your own, but you need to find a suitable supervisor.
- **What if I fail to find a supervisor?**
 - You will get one assigned to you in Week 03.
- **Do I need to pick a second reader?**
 - No, the second reader is assigned to you automatically.
- **Who organises the meetings with the supervisor?**
 - These are mutually agreed upon.
- **How often should I meet with my supervisor?**
 - Every week (1-10) in both semesters.

Common Questions

- **How long should I meet with my supervisor?**
 - Your supervisor will meet with you at least 20 minutes each week (individually) or meet for an hour if in groups (max 4 students).
- **Should I meet with my supervisor every week without exception?**
 - No, you or your supervisor might not be available every week. Communicate, discuss and plan accordingly.
- **Who is the Ethical Coordinator?**
 - We have a team led by Marta Romeo.
- **Where can I find examples or past dissertations?**
 - These will be available online
- **Any other questions?**
 - ...