THE UNIVERSITY of EDINBURGH
informatics

Lecture 1

Informatics Project Proposal (IPP)

2023/2024

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Based on and adapted from earlier versions by Björn Franke
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and

IPP Tutors

Part 1: Overview

1 Your MSc Programme

2 Motivation

3 Goals

Your MSc Programme

- **Taught component (100 credits)**
  - Lectures, tutorials, courseworks, exams
  - Learn established techniques that work
- **Research component (80 credits)**
  - Do something that has never been done before
    - Study a new problem, develop a new method, etc.
    - Probably the most exciting (and hardest) part of MSc
  - ***Dissertation*** (**60 credits** , 20-40 pages)
- **Two courses prepare you:**
  - **IRR:** literature review in your broad area of interest (10 credits)
  - **IPP:** write a detailed plan for your specific MSc project (10 credits)

MSc Project Timeline

- **Semester 1 (IRR)**
  - Learn about a relevant area: **explore** research papers
  - Write a 10-page **critical review** of what you learned
- **Project Proposals**
  - ***19 Jan 2024:*** deadline for all project proposals, including self-proposed projects
  - ***26 Jan 2023 – 9 Feb 2023:*** Talk to supervisors, pick set of topics
  - algorithmic allocation
- **Semester 2 (IPP)**
  - write a detailed **research plan** for what you're going to do (CW, 100%)
- **Summer** (provided you progress to the dissertation stage)
  - Work on your **project** (design, build, test, analyse results)
  - Write a **dissertation** – ***end of August 2024 (TBA)***
- **Timetable:** https://opencourse.inf.ed.ac.uk/diss/

Why?

SCQF LEVEL DESCRIPTORS

scqf scottish credit and qualifications framework

LEVEL 11

The following descriptions are for guidance only –
it is not expected that every point will necessarily be covered.

CHARACTERISTIC 1: KNOWLEDGE AND UNDERSTANDING

- Demonstrate and/or work with:
  - Knowledge that covers and integrates most, if not all, of the main areas of the subject/discipline/sector – including their features, boundaries, terminology and conventions.
  - A critical understanding of the principal theories, concepts and principles.
  - A critical understanding of a range of specialised theories, concepts and principles.
  - Extensive, detailed and critical knowledge and understanding in one or more specialisms, much of which is at, or informed by, developments at the forefront.
  - A critical awareness of current issues in a subject/discipline/sector and one or more specialisms.

CHARACTERISTIC 2: PRACTICE: APPLIED KNOWLEDGE, SKILLS AND UNDERSTANDING

- Apply knowledge, skills and understanding:
  - In using a significant range of the principal professional skills, techniques, practices and/or materials associated with the subject/discipline/sector.
  - In using a range of specialised skills, techniques, practices and/or materials that are at the forefront of, or informed by forefront developments.
  - In applying a range of standard and specialised research and/or equivalent instruments and techniques of enquiry.
  - In planning and executing a significant project of research, investigation or development.
  - In demonstrating originality and/or creativity, including in practices.
  - To practise in a wide and often unpredictable variety of professional level contexts.

CHARACTERISTIC 3: GENERIC COGNITIVE SKILLS

- Apply critical analysis, evaluation and synthesis to forefront issues, or issues that are informed by forefront developments in the subject/discipline/sector.
- Identify, conceptualise and define new and abstract problems and issues.
- Develop original and creative responses to problems and issues.
- Critically review, consolidate and extend knowledge, skills, practices and thinking in a subject/discipline/sector.
- Deal with complex issues and make informed judgements in situations in the absence of complete or consistent data/information.

CHARACTERISTIC 4: COMMUNICATION, ICT AND NUMERACY SKILLS

- Use a wide range of routine skills and a range of advanced and specialised skills as appropriate to a subject/discipline/sector, for example:
  - Communicate, using appropriate methods, to a range of audiences with different levels of knowledge/expertise.
  - Communicate with peers, more senior colleagues and specialists.
  - Use a wide range of ICT applications to support and enhance work at this level and adjust features to suit purpose.
  - Undertake critical evaluations of a wide range of numerical and graphical data.

CHARACTERISTIC 5: AUTONOMY, ACCOUNTABILITY AND WORKING WITH OTHERS

- Exercise substantial autonomy and initiative in professional and equivalent activities.
- Take responsibility for own work and/or significant responsibility for the work of others.
- Take significant responsibility for a range of resources.
- Work in a peer relationship with specialist practitioners.
- Demonstrate leadership and/or initiative and make an identifiable contribution to change and development and/or new thinking.
- Practise in ways which draw on critical reflection on own and others' roles and responsibilities.
- Manage complex ethical and professional issues and make informed judgements on issues not addressed by current professional and/or ethical codes or practices.

IRR vs IPP

IRR	IPP
• Literature Review	• **Your** Project Proposal/Plan
• Coursework – assessed by tutors	• Coursework – assessed by project supervisor
• Mandatory tutorial groups	• Mandatory **tutorial groups** & **meetings with supervisor!**

Goals

- Learn skills of **project planning**
- Confirm choice of (research) **project area**
- Scope out your **summer project**

Further IPP Goals

- Knowing **what to work on** is a **big part of research**
  - Motivation is identifying a **void** in the **literature**, or a real-world **problem** that has **not been solved**.
  - Coming up with a **feasible** way to address the problem.
    - Propose **ways of evaluating** the techniques.
    - Present **expected outcomes** succinctly and objectively.
- Important skills
  - For PhD applications
  - For grant writing
  - For industry project proposals

Part 2: Course Organisation

1 Components of IPP

2 Timeline

3 Project Supervisors

Components of the IPP

- 5 **lectures – in person in George Square Theatre, room** GALT_ Gordon Aikman Lecture Theatre
- Open hours – **online on Weds** 13:10-14:00 on Collaborate
- 6 **IPP tutorials, starting from week 4** – in person
- **Coursework** – due in W14, on Tue 22 Apr 2024, 12:00 (Noon)
- **Regular** (weekly or fortnightly) **meetings with your project supervisor**

Components of the IPP

Open hours → Class Collaborate from Learn

INFR11147 2023-4 SS1 SEM2

Informatics Project Proposal (2023-2024)[SEM2]

Content | Calendar | Announcements | Discussions | Gradebook | Messages | Groups

Course Staff

Aurora Constantin
INSTRUCTOR

Lindsay Seal
INSTRUCTOR

Show more

Details & Actions

Class register
View everyone on your course

Progress Tracking
On

Class Collaborate
Join session
Course Room

View course & institution tools

Microsoft Teams
Enable Microsoft Teams

Course Content

Click Here for Teaching Materials

For all course teaching materials, please follow this link to the course webpage. For all course admin and submission links, please see the items below.

Course Overview

Basic course information including coursework and exam balance.

Course Contacts

Names, roles, and contact details for everyone involved in teaching the course.

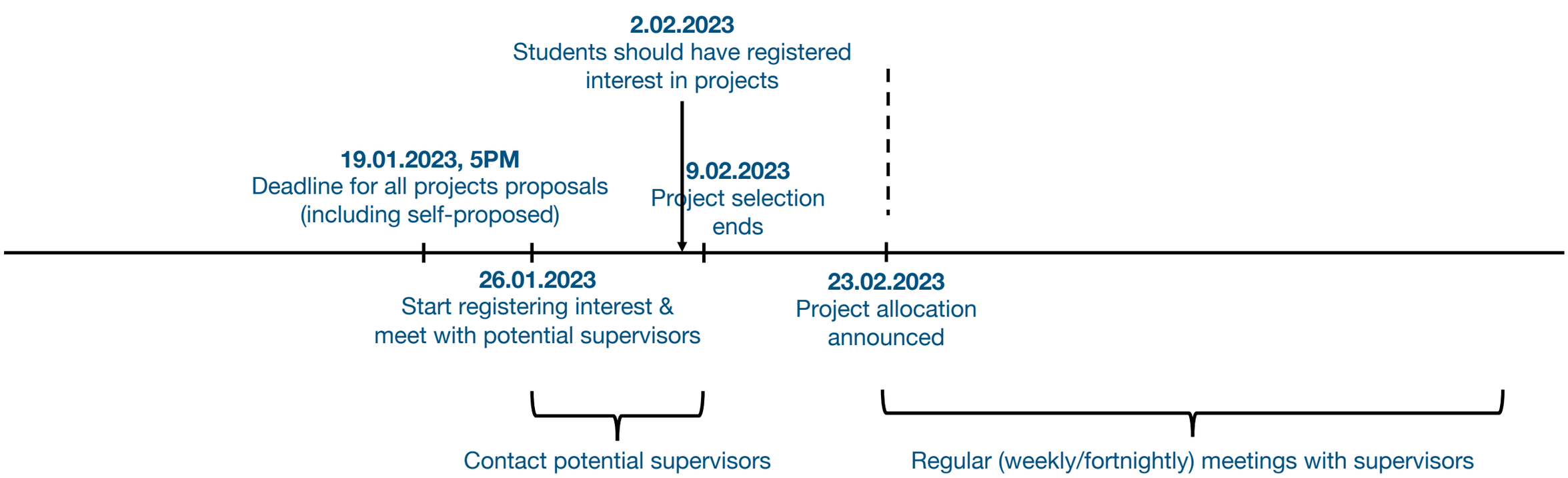
Course Information

Includes important course information, learning outcomes, course contacts and help and support. (Click to expand)

Not started

Timeline

	W1	W2	W3	W4	W5	FLW	W6	W7	W8	W9	W10	W11	...	W14
Lectures	✓	✓			✓		✓	✓						
Q&A Live session	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓		
Tutorials				✓	✓			✓	✓	✓	✓			
Coursework (IPP) submission														22.04



FLW =Flexible Learning Week
https://opencourse.inf.ed.ac.uk/diss/

Self-proposed projects

Home

IPP: Informatics Project Proposal

Navigation links

IPP: Schedule
IPP: Course Materials
IPP: Tutorials
IPP: Academic Writing and Language Resources
IPP: Meeting Academic Standards
IPP: Self-proposed projects
IPP: Past IPP Examples and Experience
IPP: Assessment

https://opencourse.inf.ed.ac.uk/ipp/self-proposed-projects

IPP Lectures*

Week (*Start day*)	Lecture Topic *(Lecturers)*
W1 (15/01/23)	Lecture 1: IPP Overview *Aurora Constantin & Douglas Armstrong*
W2 (22/01/23)	Lecture 2: MSc Project Selection Guidance *Douglas Armstrong & Aurora Constantin*
W5 (12/02/23)	Lecture 3: Writing a Research Proposal *David Caulton*
W6 (26/02/23)	Lecture 4: How to write a great research proposal *Aurora Constantin & Douglas Armstrong*
W7 (05/03/23)	Lecture 5: Responsible Research *Bjorn Ross, Aurora Constantin & Douglas Armstrong*

** Lecture will be held in person, on Tuesdays, at 13:10 BST, in George Square Theatre, room GALT*

IPP Tutorials

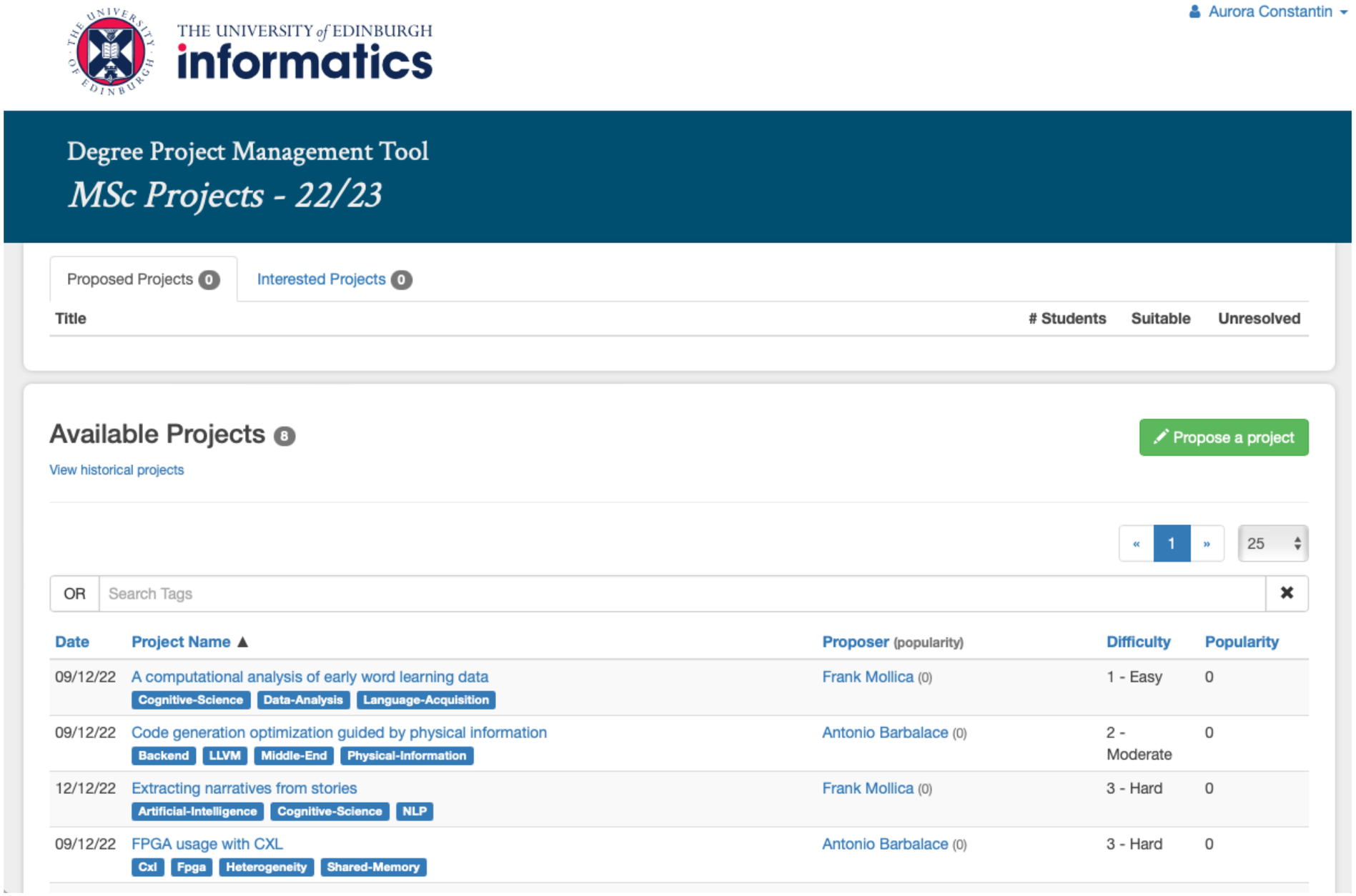
- Tutorials focus on **generic project planning** skills and **proposal writing**, not the technical content of your plan
- Tutors are there to help you. Get this opportunity.
- Attendance is mandatory: ignore meetings = fail IPP
- Tutorial group allocation → TTU
- To change your tutorial group, you need to complete a GCRF form direct to TTU:

  https://www.edweb.ed.ac.uk/timetabling-examinations/timetabling/personalised-timetables/group-change-request

Coursework

- CW (100%): Writing an IPP – *due on 22/04/23, 12:00 PM*
  - Students work individually to write a project proposal focused on the project which will be allocated to them towards the end of February 2022.
  - This proposal will guide their summer project.
  - Marked by supervisors – pass/fail

Degree Project Management Tool (DPMT)



Regular Meetings with Project Supervisor

- Start **after project allocation**
- You are in charge to **schedule regular meetings**

  Do not let it slip! Supervisors will not chase you
- **Supervisors mark the technical content** of your report

Relation with your Supervisor

- **Weekly meetings** are a good starting point – fortnightly if your supervisor prefers – but make it short if you have nothing to discuss
- **Do not cancel if you are stuck**!
- **Bad practice**
  - Asking feedback on many versions of your IPP
  - Last minute cancellations
- **Good practice**
  - Show initiative
  - Search and read secondary literature
- **Essential ingredients**
  - Good communication
  - Clarity about expectations