Guide for Research Projects Supervisors and Examiners

Potential supervisors are encouraged to submit potential research projects to the Course Administrator before the end of Lent Term. The nature of these projects can be quite diverse, as long as computational modelling/analysis of biological systems forms a central part of the project. Where possible, potential supervisors are encouraged to give a seminar to the students about their work.

There is a template form with which to submit proposals, requiring no more than a ½ page description of the project and contact details of the potential supervisor.

The template sets out Timescales and commitments required from supervisors, who are expected:

- To provide the students with all the resources required to complete the project. (Students will however have access to a computer server based in the Mathematics Department. If HPC is required, we would expect the supervisor to provide this.) Sufficient data for the project to be written up would need to be available within the timeframe of the placement.

- To provide project/s which are appropriate for students to research. We advise that supervisors strongly consider the nature of the research environment when providing background information for projects that may be of a confidential or sensitive nature. Students should not be required to sign 'non-disclosure' agreements (NDAs) with organisations in order to carry out research projects.

- To meet the students regularly throughout the placement: we recommend at least weekly meetings to ensure that the student is making suitable progress on the project. Co-supervision of the project, e.g. with senior postdocs in a group, is allowed.

- To review and provide general comments on a draft of the students project report. Students are advised to share a draft of their report with their supervisor in a timely fashion. There is no expectation that supervisors will provide further feedback or proofread the report before submission.

- To be available to mark the project within the strict window of 8-13 August 2024. Project reports will be marked independently by two assessors: the project supervisor and an examiner. Each assessor will write a short (usually 1/2 to 1 page) report on the project, commenting where appropriate on the following elements:

  - Scientific approach to problem
  - Results
  - Overall quality of explanation
  - Style and presentation

  An overall grade should be provided according to the University-wide MPhil marking scheme:

  - 75% and over for a distinction
  - 65-74% for strong reports
  - 60-64% for satisfactory reports
  - A mark of under 60% therefore indicates a fail

  If the discrepancy between two assessors' marks is less than 10%, the two marks will be averaged. Otherwise, the two assessors will be asked to discuss the reports, and possibly adjust their marks. If no agreement can be reached, another assessor will be asked to adjudicate. Note that assessor reports will be made available to students after marking.

Please note:

By submitting a proposal, supervisors consent to the University's standard project Terms and Conditions for University of Cambridge projects (available on request).

Projects are to be considered academic in nature and any inventions or other intellectual property generated by a given project will be wholly owned by the student. External partners shall be given the results of a project for internal research purposes only, the acquisition of any other intellectual property rights by a sponsor organisation shall be at the discretion of the student.

The University is unable to provide measures to protect students exposed to sensitive information. Students should not be required to sign 'non-disclosure' agreements (NDAs) with organisations in order to carry out research projects. The University will not allow students to undertake personal exposure to commercial liability while working on the projects

Assessment

Students will be assessed in two ways:

1. A written report of the project (worth 2.5 modules)

2. An oral presentation (worth 0.5 modules)

Written report

The exact nature of this report will vary according to the research project, but it should take the format of a dissertation, normally with the following structure:

*   Chapter 1 - introduction/aims/literature review

*   Chapter 2 - the work (possibly broken down into more than one chapter).

*   Chapter 3 - conclusions / future work

*   References

*   Appendices - for any extra material (e.g. code snippets, detailed derivations) that can be included for future reference, rather than necessarily to be read by the examiner.

The report should be no more than 15,000 words; as a guide it should be no more than around 36 pages of text (at 500 words/page, but that assumes no figures). This word limit excludes the bibliography and appendix and includes everything else, including the figure legends and glossary. Please note this is an *upper* word limit - writing a short, clear report is better than a long report padded with text to reach the upper word limit. Students must write the word count on the front page of the report.

Examples of reports from previous years are available on Moodle or from the Course Administrator.

Oral presentation

Presentation files (PDF/PPT) are submitted to Moodle and uploaded to a group laptop that is used for all presentations; students are not normally permitted to use their own laptops for presentations. Each talk is expected to last 20-25 minutes, with five minutes for questions. Students are expected to keep to time, as there are many presentations each day. If any students reach 25 minutes, they will

be asked to stop immediately. We strongly advise that students arrange to give several practice talks (e.g. to colleagues, or host lab) as experience has shown that people who practice give better talks. Students are also encouraged to attend the talks of their colleagues.

Presentations are given in person, unless permission has been granted for them to be made remotely via Zoom.

Key dates and contacts for 2024
The key dates for students are:
• Project start: 13 May 2024
• Report submission: 7 August 2024, 16:00 BST
• Presentation submission: 12 August 2024, 16:00 BST
• Presentations: 14-15 August 2024 (times TBC)

Project supervisors and examiners will receive reports for grading by 8th August; evaluations are required by 12th August. Project supervisors and examiners should be available to discuss their evaluations on 13th August, in the event that the marks are not within 10% of each other.
Please email the Course Administrator compbiomphil@maths.cam.ac.uk with any queries.