Department of Statistical Sciences

Honours Programmes 2025

Project Information for Students and Supervisors
(Additional info to be added!!! Expect communication regarding portfolio dissertation.)

This document outlines relevant deliverable dates for honours projects offered in 2024. We also detail what the respective deliverables consist of. If you have any questions, please don't hesitate to email **Etienne** for clarification.

1 Relevant dates and deliverables:

	Article	Aprox. Date	Deliverables	Weighting
1.	Topics in from Supervisors	End Feb		
2.	Topics released on Vula	End Feb		
3.	Project preferences	Early of March		
4.	Allocation complete	Mid March		
5.	Project proposal + proposal presentation	Block 2	D1	5%
6.	Mid-Year Presentations	After Mid-Year Vac. Block 3	D2	5%
7.	Final hand-in	Last day of Sem 2 before Exam	D4	80%
8.	Poster Presentations	End of Year, After Hand-In	D3	10%
9.	Projects marked			
10.	Viva talk (oral defense)			

Deliverable dates can be checked via the Honours Calendar - links on Amathuba.

2 Topics and supervision:

Potential Supervisors are to submit project topics for the honours students to choose from. For these purposes, supervisors are to add their topic(s) to a Google doc (for which the link will be shared via email). Each topic entry should consist of an **abstract**, relevant detail pertaining to the **proficiencies** required for a particular topic (coding, mathematics, etc.) and any **prescribed reading/references** (see the template for a worked example). Figures are welcome too.

After potential supervisors have provided topics, these will then be uploaded to Vula. The students may then read through the topics in detail and engage with supervisors to discuss potential supervision and/or gather more details regarding a given topic. This will occur in the week following the release of topics on Vula. Students will be required to submit their topic

preferences after which students will then formally be allocated to topics in pairs by one of the honours convenors.

3   Deliverables

Deliverable 1 - Project proposals:
Following the format adopted as of 2019, the first deliverable for the honours project will be a **project proposal write-up** and **short proposal presentation** to the class/department on the particular research topic. This will provide supervisors with the opportunity to give feedback make it clear exactly what the project entails, what components of the analysis should be prioritised, and by which dates they need to be completed. This will also give students a chance to show class mates and staff what they will be researching.

Details regarding each component are as follows:

- The **proposal write-up** may consist of a short outline (1-3 pages) in PDF format detailing the research topic itself and the analysis to be conducted, division of labour, and a time-line scheduling goals/tasks/deliverables to be completed, for example. Though you may use the above as a guide, there is no hard format for what *needs* to be contained in outline. As such, the supervisor may indicate to the students what they expect to be in the proposal. Students will submit the PDF document on Vula by the prescribed date (final dates to be announced on Vula). The proposal PDF will be assessed by the supervisor.

- For the **proposal presentation**, we will book a lecture venue and schedule a session or two (dates and times to be announced (TBA)–this will be after the PDF hand-in) in which pairs of students will give a **5-minute presentation** (with slides) on their chosen topic to the honours class, staff members and any other individuals who are interested. The proposal presentation will be assessed by the supervisor.

For purposes of **assessment**, the **supervisor** will assign a **single mark out of 100** encapsulating both the proposal and proposal presentation.

Deliverable 2 - Progress reports:
The second deliverable for the honours project is a progress report **detailing which milestones/goals set out at the proposal phase has been reached as well as a skeleton outline for the write-up** with sections such as the **literature review**, for example, to be completed. Progress reports are expected to be completed and handed to supervisors upon return from the midyear vac (see the above table and the honours academic activities calendar for the relevant date). It is expected that students will use the midyear vac to complete a significant proportion of the research. This is to ensure that any technical issues identified may be highlighted and discussed with supervisors. A copy of the progress report will be handed in electronically on Vula within the first week of the second semester (final date to be announced on Vula).
Note: Previously, we found that the progress reports could be difficult to assess since all projects don't necessarily require an extensive literature review, for example. Again, we do not impose a hard format on what the progress report must contain, and it is for the supervisor to decide which aspects of the research need to be completed by this point. As such, we advise setting relevant goals/expectations before students leave for the midyear vac, and use those as a guide for assessing whether sufficient progress has been made. For purposes of **compiling a mark**, we then propose including this assessment using the following overall criteria: Goals/required items set by supervisor achieved/produced (50%), extent/quality of the analysis/research achieved to date (30%), and finally the quality of the progress report itself (20%). The use of these criteria is

~~motivated as (1) the deliverable should assess progress, (2) contain some continuous assessment of the research, and (3) reward progress made on developing skills such as typesetting and report writing.~~

~~For purposes of **assessment**, the **supervisor** will assign a **single mark out of 100** for this deliverable.~~

Note: As of 2023, the mid-year progress reports have been scrapped and instead we've moved the project presentations (now mid-year presentations) earlier (just after the mid-year vac) and included a new deliverable namely the poster presentations.

Deliverable 2 - Mid-Year presentations:

For purposes of conducting mid-year presentations, we'll typically have a number of (possibly parallel) sessions organised by topic running over three or four days in a designated week. Topics will be allocated to sessions according to their contents so that each session covers broadly similar topics. **Markers will be assigned** to each session and scores will be aggregated for purposes of **assessment**. A rubric will be given indicating how students are to be assessed. The rubric is only suggestive, and any other criteria deemed appropriate by the assessor can be used. Note that presentations are scheduled before hand-in. This ensures that students get most of the analysis done well before hand-in and incorporate any feedback from the audience if need be. Presentations will be in the format of a **12-minute talk, to be conducted by both students, followed by 3 minutes for questions.** Provisionally, these are to be conducted in person. In the unlikely event that we are not able to conduct these in person for whatever reason, these sessions will be hosted in MS Teams.

For purposes of **assessment**, the programme convenor will calculate a **single mark out of 100** as an average of the session markers' scores.

The purpose of the mid-year presentations is to show your research and analysis and to expose students to presenting research to an audience. Indeed, where research presentations are concerned it is a difficult skill to learn how to clearly communicate complex mathematical methodology within the constraints of a short presentation. One should be prepared for a potentially hostile/sceptical audience with some push-back or difficult questions from the audience. This is normal in academic settings. Indeed, students may then use feedback and questions from the mid-year presentations to improve or augment the existing work.

Deliverable 3 - Poster presentations:

The aim with the poster presentations is to replicate the poster presentation format that researchers often encounter during conferences. Poster presentations sessions are usually organised as follows: a venue is allocated where presenters can set up posters illustrating their research and then, during say lunch or some designated time, attendees will walk amongst the posters and engage with presenters stationed at their posters. We plan to emulate this by setting it up a nice social event with snacks and such where everyone gets to present their posters and interact with staff and students regarding their research. Details to be announced closer to that time but this will be towards the end of the second semester before final hand-in. We'll share examples of poster presentations on Vula.

For purposes of the assessment, the convenors will assign a team of judges/markers who will assign a score based on a criteria guide. A prize will be given for the best poster presentation. A single aggregated mark out of 100 will be calculated contributing 10% to the overall project mark.

Some usefule packages and software: `posterdown` in Rmarkdowm, and `beamerposter` in LaTeX.

Deliverable 4 - Final hand-in:

Final hand-in of the project is typically scheduled on the last day before the exam period starts. Projects will then be dispersed among lecturers in the department for assessment. One copy will be given to the supervisor and another to an internal examiner.Allocation will be done by the honours projects convenor and soft-copies will be sent via email. The final mark will then be calculated as the average of the two marks subject to a minimum spread (after adjustment in the oral defence, if required). If a large spread is observed, the convenor will mediate consolidation of the marks with the supervisor and internal examiner. Failing this, the project may be marked by a third examiner.

Viva (*viva voce*/oral defence) talks:
The final deliverable is an oral defence of the completed project. This consists of a meeting between the students, supervisor, and internal assessor where each student, in turn (on an individual basis) may be prompted by the panel, consisting of the supervisor and assessor, on the project content as well as the contributions made by team members. Subsequently, the panel may discuss the defence and adjust marks allocated to the project on an individual basis (one by each member of the panel).

Vivas are to be scheduled by the supervisor in conjunction with the internal examiner at their own discretion, the only constraints being that the project needs to be marked before the meeting takes place and that Vivas are to be scheduled within an allocated time period (dates to be communicated via email).