Maths and Statistics: Part C and projects

October 2016
Part C

See
http://www.stats.ox.ac.uk/current_students/bammath/course_handbooks

for the

- *Maths and Statistics Undergraduate Handbook*
- *Maths and Statistics Syllabus and Synopses for Part C.*
Projects

*Part C Dissertations in Statistics: Guidance Notes*

http://www.stats.ox.ac.uk/current_students/bammath/projects

The notes include: information about how much work, how much supervision, submission information, where to look for writing guides, referencing, **the need to avoid plagiarism**, . . .

We’ll go over some of these things in this talk.
In Part C, each student must offer

- a dissertation on a statistics project (which is the equivalent of 3 lecture courses)
- and a total of 5 further units (i.e. 5 lecture courses, including at least one statistics course).

Part C = 8 units in total
Dissertation = 3 units
16 lecture course = 1 unit

So the project is $\frac{3}{8} = 37.5\%$ of Part C.
Projects

A project

- is good for your education – a chance to do a substantial piece of work
- is a contrast to a 3-hour exam
- shows you what it is like to work on something which doesn't have a short answer
- is valuable if you plan to do research (PhD/DPhil)
- is valuable if you plan to get a job – employers will want the skills you develop during project work
- is something you may be asked about in an interview.
How much work?

The project counts as 3 units in Part C, and you do 5 other units in Part C. So if

\[ C_D = \text{dissertation standardised mark} \]
\[ C_1, \ldots, C_5 = \text{standardised marks for five lecture courses} \]

where all of \( C_D, C_1, \ldots, C_5 \) are out of 100, then your weighted average USM in Part C is

\[ \text{AvUSMC} = \frac{3C_D + C_1 + \cdots + C_5}{8}. \]

Your Part C classification is determined by

- First Class: \( \text{AvUSMC} \geq 70 \)
- Upper Second Class: \( 60 \leq \text{AvUSMC} < 70 \)
- ...
How much supervision?

‘Students can expect to have up to about 12 hours of project supervision with their supervisor spread across Michaelmas and Hilary terms. Supervisors may strongly prefer that this supervision takes place during full term, so students should take this into account when planning their work.

Supervisors are only expected to read and comment on the draft dissertation once. It is reasonable to allow a week or so for work to be read, so it is particularly important that students take this into account when planning final writing.

Supervisors will be asked to keep a log of the amount and the nature of the project supervision that they give. This log will be passed on to the Part C Examiners.’
Submission

- Two paper copies of the dissertation
- and an electronic (PDF) copy, which must be identical

must be submitted to

_The Chairman of the Examiners_
_Honour School of Mathematics and Statistics (Part C)_
_Examination Schools_
_Oxford_

by _12 noon on the Monday of week 10 of Hilary Term._

These copies should be identified by candidate number only.

Every candidate must complete and sign a declaration of authorship saying that their dissertation is their own work, except where acknowledgement is made.

The 2 paper copies, the pdf copy (on CD, or USB stick), and the declaration should be in the _same envelope._
Submission

‘Both copies of the dissertation should be bound. Hard bindings are not required and cheaper forms of soft binding, such as thermal binding or comb binding, are in most cases perfectly adequate. Loose leaves in ring binders or held together by paper clips, are not acceptable.’

‘Its length should not exceed the equivalent of 10,000 words (excluding diagrams, . . . ).’

With an average number of figures (graphs), and a fairly standard page layout, 10,000 words probably corresponds to a maximum of about 40 pages.
Organisation

Supervisors may want to meet you only during term (so not including MT week 9, nor HT week 0).

But you should be doing some project work over Christmas, so you need to plan accordingly.

The submission deadline is at the start of HT week 10, so

- if you want all of week 9 to make final adjustments, and
- if your supervisor takes about a week to read your draft dissertation

then you would need to give them your draft in week 7 at the absolute latest to give them time to read and comment . . .

. . . aim for week 6! (at the latest).
Organisation

You need to:

- think ahead and plan your project work carefully
- discuss possible plans with your supervisor at an early stage.

Remember that your supervisor may not be able to fit in with your preferred timetable – they have lots of other work to do – so it is important that you discuss with them.

You should have contacted your supervisor already: if not, you should do this as soon as possible.
It is the dissertation which is read by the Examiners – writing it is a substantial part of the work involved in your project.

You should put effort into presenting your work as clearly as possible.

If you have not explained your thinking clearly, then you cannot expect the reader (examiner) to understand what you are writing about.
Writing guides:

- Ehrenberg, *Writing Technical Papers or Reports*
- Katzoff, *Clarity in Technical Writing*
- Strunk and White, *The Elements of Style*

Writing maths:

- London Mathematical Society, *Writing Mathematics*
- Knuth, Larrabee and Roberts, *Mathematical Writing*

See the guidance notes for full details of these references.
Libraries and other resources

In connection with your project you are welcome to

- use the departmental library
- apply for a departmental computer account.

For either of these, you need to contact the Academic Administrator (Jan Boylan, boylan@stats.ox.ac.uk).
Libraries and other resources

I would recommend that you write your dissertation using \LaTeX:

- Intro lectures in weeks 1–3 (in Maths – see lecture list)
- The MiKTeX distribution of \LaTeX is excellent
  \url{http://www.miktex.org/}
- You might also like the TeXworks, or Texmaker, or TeXstudio editor for preparing your \LaTeX documents.
- Guides on the web: Oetiker et al., *The Not So Short Introduction to \LaTeX*, and many others.

There are also many books, e.g. Kopka and Daly, *A Guide to \LaTeX*.

Bodleian Libraries: \url{http://www.bodleian.ox.ac.uk}
Information skills session in week 2 – at RSL
Correct referencing

You must always acknowledge other people’s work or ideas in your own work.

In particular, you must do this in your dissertation.

Referencing other people’s work or ideas does not diminish the quality of your work, it enhances your work and is essential.
Plagiarism is something that you must avoid.

_plagiarise_. take someone else’s writings or ideas and use them as if they were you own. [Oxford School Dictionary (2002)]
Plagiarism

See http://www.ox.ac.uk/students/academic/guidance/skills/plagiarism

“Plagiarism is presenting someone else’s work or ideas as your own, with or without their consent, by incorporating it into your work without full acknowledgement. All published and unpublished material, whether in manuscript, printed or electronic form, is covered under this definition. Plagiarism may be intentional or reckless, or unintentional. Under the regulations for examinations, intentional or reckless plagiarism is a disciplinary offence.”

You should read the above webpage carefully, including the section on unintentional plagiarism. [More in the “Writing a dissertation” talk later this term.]
Part C candidates must submit an electronic version of their dissertation which will be screened by the program “Turnitin” for plagiarism.

In your dissertation, it must be clear what is your own work and what is someone else’s work. If you have used someone else’s work, it must be clear how you have used it.
Sample chapter

“By the end of week 1 of Hilary Term (or earlier), it is strongly recommended that you give a sample chapter of your dissertation to your supervisor and ask them for feedback on your work. In particular, this would be a good time to have a discussion about avoiding plagiarism (unless you have already discussed this).”