



Course Outline

School of Mathematics and Statistics

Faculty of Science

Term 2, 2022

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Course Authority

- x Latest student news, go to “Student noticeboard”. Notices are posted regularly for your information here.

Please familiarise yourself with the information found in these locations. The School web page is: <https://www.unsw.edu.au/science/our-schools/math>.

If you cannot find the answer to your queries on the webpages you are welcome to contact the Student Services Office directly. The First Year Advisor in the Student Services Office is Ms Hilda Cahya. All administrative enquiries concerning first year Mathematics courses should be sent to her, either:

- x By email to ug.mathsstats@unsw.edu.au
- x By phone: 9385 7011.

Constructive comments on course improvement can

This course is primarily aimed at students intending to pursue a major in a field involving quantitative research (hence knowledge of introductory statistics is essential) but for which higher-level mathematics or statistics is not essential. Maths courses MATH1231, MATH1241, or MATH1251 are pre-requisites for many later year mathematics courses, so if you have an interest in pursuing further study in mathematics or statistics, you should consider whether MATH1041 is the right course for you.

It is possible to study higher-level statistics courses after completing MATH1031 and MATH1041, provided that you received a credit grade in MATH1031. However, if you wish to complete a Major in Statistics, you will be better prepared if you study MATH1131 and MATH1231 (or MATH1141 and MATH1241 Higher Mathematics), as most of our Statistics major students do.

At the successful completion of this course you (the student) should be able to:

Recognise which analysis procedure is appropriate for a given research problem involving one or two variables.

Understand principles of study design.

Apply probability theory to practical problems.

Interpret computer output for a statistical procedure.

Calculate confidence intervals and conduct hypothesis tests by hand for small datasets.

Understand the usefulness of Statistics in your professional area.

Apply statistical procedures on a computer using RStudio/R.

New ideas and skills are introduced and demonstrated in lectures, and then students develop these skills by applying them to specific tasks in tutorials, and assessment tasks. Assessment in this course will use problem-solving tasks of a similar form to those practised in class tutorials and M1d emi8 (au-11.5 (d 0 Tw 34.4

To find the recordings enter Blackboard Collaborate. In the top left of the window, you will see three horizontal lines. Click on this for a menu and then select "Recordings". Once you are on the recordings page, you can choose another date range by clicking on the drop-down menu to the right of the words "Filter by" near the top right corner of the Blackboard Collaborate recordings list. An image showing where to find these menus is below.

Möbius weekly lessons and online assessments in this course use a system called Möbius. Information on how to access and use Möbius is provided on Moodle.

Firefox or Chrome are the recommended browsers for Möbius. Edge, Safari and Internet Explorer have caused problems in the past. No special consideration will be considered for students using a non-recommended browser, except by prior arrangement.

The assessment structure of MATH1041 may be quite different to high school and other courses that you are used to. It is designed so that students should expect to be close to passing the course before taking the final exam with pre-exam assessment focusing on basic skills and the exam focusing on more advanced skills.

- x The Möbius Weekly Lessons allow answers to be checked while working on them, they allow unlimited attempts, they are available for an extended period and students can work together, seek help, and use any resources they wish. Most students gain a perfect score in these.
- x The two Lab tests are designed to give students feedback on progress and mastery of the course, under exam conditions and to evaluate progress towards the stated learning outcomes.
- x Marks less than 80% on Lab tests should be seen as a warning sign of possible failure in the course.
- x The (computing) Assignment is available over a

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- x To pass MATH1041 you need a mark of 50% or greater overall. There is no requirement to gain any particular mark in any individual assessment items.

The final raw mark for MATH1041 will be made up of the following weightings (see also page [13](#)):

Möbius Weekly Lessons	10%	Möbius	1 week for each lesson	3 PM on Tuesdays (Weeks 1-5, 7-10)	All toIM on5,12(eac)-8.1 (h)TJ-0.36
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to assess more challenging questions and gives you the opportunity to think more deeply about your responses. It also enables the assessment of computer-aided data analysis and problem solving.

The assignment will be made available on Moodle on

Statistical Inference involves some quite subtle concepts, and it often takes people a while to understand the core ideas. Hence, five weeks of the course are devoted to inference, to give you as much time as possible to master these subtle but important concepts. The following table shows the order in which the course material is covered and approximately which week we will begin each topic. Note that sometimes a topic may take more or less than one week, so some variations from this schedule are inevitable.

1	Design of experiments
2	

- x of diverse genders, sexes and sexualities
- x from refugee and refugee-like backgrounds
- x from rural and remote backgrounds
- x who are the first in their family to undertake a bachelor-level degree.

Their web site is: <https://student.unsw.edu.au/els/services>

Equitable Learning Services (ELS) may determine that your condition requires special arrangements for assessment tasks. Once the School has been notified of these, we will make every effort to meet the arrangements specified by ELS

Additionally, if you have suffered significant misadventure that affects your ability to complete the course, please contact your Lecturer-in-charge in the first instance.

The Learning Centre offers academic support programs to all students at UNSW Australia. We assist students to develop approaches to learning that will enable them to succeed in their academic study. For further information on these programs please go to:

<http://www.lc.unsw.edu.au/services-programs>

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