Welcome to MATH1031
# REFERENCES FOR MATH1031 (LEC 1 TUE/WED)

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1: Calculus an Applied Approach by Larson and Edwards
2: Mathematics for the Biological Sciences by Arya and Lardner
4: Elementary Linear Algebra by Larson and Edwards, 4th edition

Copies of the above four books can be found in the LIBRARY
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**2:** Mathematics for the Biological Sciences by Arya and Lardner

**3:** Advanced Engineering Mathematics by Erwin Kreyszig, 7th edition

**4:** Elementary Linear Algebra by Larson and Edwards, 4th edition

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GENERAL INFORMATION

MATH1031, Mathematics for the Life Sciences, is a first year course offered by the School of Mathematics and Statistics. The course has been designed to meet the specific needs of students in the Life Sciences. It is a 6 units of credit, single semester course offered in Semester 1. Most students who complete MATH1031 go on to do MATH1041, Statistics for Life and Social Sciences, in Semester 2.

It is important to note that MATH1031 will not serve as a prerequisite for many second year mathematics courses. However, a credit in MATH1031 satisfies the prerequisite for a number of second year courses including some in operations research, oceanography and meteorology, biomathematics, mathematical computing and statistics.

The excluded courses for MATH1031 are MATH1011, MATH1021, MATH1131, MATH1141, MATH1151, MATH1231, MATH1241, MATH1251, ECON1202 and ECON2291.

Assumed knowledge

Assumed knowledge for MATH1031 is a mark of at least 60 in the NSW HSC Mathematics course, formerly referred to as HSC 2 Unit Mathematics, (or equivalent qualifications). It will be assumed that you have a good understanding of everything in the syllabus for 2 Unit Mathematics (Calculus based course) and that you have well-developed skills in the basic techniques of high school mathematics.

Lecturers

Lecturer-in-charge: Dr. Chi Mak chi.mak@unsw.edu.au (Ph) 9385 7073
Lecturer: Dr. William Ellis wjellis@unsw.edu.au
Lecturer: Dr. Amandine Schaeffer z3340777@unsw.edu.au
Lecturer-in-charge of computing: Dr. Jonathan Kress Room 4102, Red Centre (Ph) 9385 7078

For tutorial administration:

The Student Services Office Room 3088, Red Centre

Lecture Times

You should attend the lectures as shown on your timetable.

Tutorials

There are two tutorials per week in MATH1031 as shown in your timetable. You will have the same tutor for both tutorials.

Students are able to change their tutorials via myUNSW until the end of week 1, and after that time, they can only change their tutorials with the agreement of the Student Services Office, RC-3088.

Note that

- ALL tutorials commence in Week 2 and run to week 13;
- attendance at tutorials is compulsory and the roll will be called in tutorials;
Content of Tutorials

As a general rule the first tutorial of the week will cover the material presented in the first two lectures of the previous week and the second tutorial will deal with the topics covered in the second two lectures of the previous week. For example the first tutorial in Week 3 will cover Matrix Equations together with Functions while the second tutorial of Week 3 will deal with Trigonometry and Special Functions.

Assessment

Your final raw mark will be made up as follows:

<table>
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<th>Component</th>
<th>Percentage</th>
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<tr>
<td>On-line tests</td>
<td>5%</td>
</tr>
<tr>
<td>Two class tests</td>
<td>20%</td>
</tr>
<tr>
<td>Computing test</td>
<td>5%</td>
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<tr>
<td>End of semester exam</td>
<td>70%</td>
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Note that:

- You will **not** be allowed to take a calculator into the class tests.
- The marks are available to you through the “Maths & Stats maths” link on the home page of MATH1031 on the UNSW Moodle server. It is your **responsibility** to check that these marks are correct and you should **keep marked tests until the end of semester** in case an error has been made in recording the marks. If there is an error, either speak to your tutor or bring your test paper to the Student Services Office as soon as possible but no later than Friday Week 13.

Class Tests

There will be two (45 minute) class tests held in the first tutorial in Weeks 6 and 12.

The topics to be examined in each test are as follows:

- **WEEK 6:** Matrix Algebra to Systems of Linear Equations with Non-Unique Solutions.
- **WEEK 12:** Applications of Systems with Non-Unique Solutions to Linear First Order Differential Equations.

The two class test marks will make up 20% of your final raw mark.

Note that:

- You **must** be enrolled in tutorials and you **must take every test in the tutorial to which you have been officially allocated**.
- To each test you must bring your **student ID** card
- You will **not** be allowed to use a calculator in class tests.

Online Tests

There are two on-line tests for this course, TP1 and TP2. These tests are 40 minutes long and contain 8 questions each. You will have 5 attempts at each test.

<table>
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<tr>
<th>Test</th>
<th>Available</th>
<th>Due</th>
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<td>2pm Friday Week 4</td>
<td>4pm Friday Week 5</td>
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<td>TP2 - MATH1031 Online test 2</td>
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They will count 5 marks in total to your final mark.

These tests can be found on the MATH1031 class in Maple TA and information on how to access and use Maple TA can be found on the MATH1031 homepage in Moodle. In order to gain access to these tests on Maple TA you must first complete the "Declaration" and "Using Maple TA" tests on Maple TA.

The material covered by these tests is the same as for the tutorial class tests.

Note:

- each attempt at these tests must be your own work, but you are encouraged to discuss the methods required with other students;
- each test presented to you will be slightly different, so don’t just copy answers from one attempt to the next.
- **no additional attempts will be granted**. You have 5 attempts at these tests to allow for technical or other problems that may result in one or more attempts being lost;
- **no deadline extensions will be granted**. You should attempt these tests with sufficient remaining time to allow for unplanned service interuptions.

Getting help outside tutorials

From week 3 there is a roster which shows for each hour of the week a list of names of members of staff who are available at that time to help students in first year mathematics courses. This roster is displayed on the same noticeboard as timetables, near the School Office (Room 3070, Red Centre) and also outside the Student Services Office (Room 3088, Red Centre). It is also available from the web page

http://www.maths.unsw.edu.au/currentstudents/consultation-mathematics-staff

You can also avail yourself of the **Student Support Scheme**.

Student Support Scheme

The Student Support Scheme (SSS) is a drop-in consultation centre where students can come for free help with certain first- and second-year mathematics courses. The SSS office is located in **RC-3064**. The schedule for opening times will be available on the SSS website at

http://www.maths.unsw.edu.au/currentstudents/student-support-scheme

by the end of Week 1. Please remember that there is no appointment needed. Just drop-in and you will be able to obtain one-on-one help from SSS tutors.

Textbooks

There are no text books for MATH1031. All topics listed in the syllabus will be comprehensively covered by the lecturers at the appropriate time.
UNSW Moodle

The School of Mathematics and Statistics uses the Learning Management System called Moodle. To log in to Moodle use your zID and zPass at the following URL:

http://moodle.telt.unsw.edu.au

Once logged in, you should see a link to MATH1031 that will take you to the MATH1031 homepage in Moodle.

In the general information section there is a link called “Maths & Stats Marks”. This takes you to a page where you can log in with your zPass and see the marks recorded for various assessment tasks. After classes have finished and before the start of the exam period, you should log in here and check that your marks have been correctly recorded. This is also where you will find your provisional final mark once it is released by the School.

Computing

In addition to the mathematics, there is a computing component in MATH1031.

There will be introductory instructional videos, again available in UNSW Moodle.

Students are then expected to independently work through and understand the provided Maple worksheets and use the practice tests in Maple TA for self-assessment.

Finally, note that the end of semester exam may contain one or two sub-questions requiring a knowledge of Maple.

Calculator Information

For end of semester UNSW exams student must supply their own calculator. Only calculators on the UNSW list of approved calculators may be used in the end of semester exams. This list is similar to the list of calculators approved for HSC examinations.

BEFORE the exam period calculators must be given a “UNSW approved” calculator sticker, obtainable from the School of Mathematics and Statistics Office, and other student or Faculty centres.

The UNSW list of calculators approved for use in end of semester exams is available at


Academic misconduct

This information can be accessed through myUNSW at:


Illness and other problems

If you are ill for a class test, then you must present a medical certificate to your tutor at the next tutorial and an M will be recorded. No more than 2 M’s will be accepted in any one semester. DO NOT apply for Special Consideration on-line for class tests.

If you miss the final examination due to illness or misadventure the follow the procedures set out in the document entitled “Application for Special Consideration in First Year Mathematics Courses 2015.” contained later in this document. Take particular note that

- The School will not necessarily contact you to tell you that you have been granted Additional Assessment. It is your responsibility to find this out by following the instructions in the
document mentioned above. As a matter of course, you should regularly check your official University email address, which is:

z(STUDENTNO)@student.unsw.edu.au

- If you have a poor record of attendance or performance during the session you may be failed regardless of illness or compassionate grounds affecting the final exam.

Note also that
- If you arrive too late to be admitted to the end of semester exam, go immediately to the Student Services Office, Room 3088, Red Centre.

School of Mathematics and Statistics Policies

The School’s policies are are:

http://www.maths.unsw.edu.au/currentstudents/assessment-policies

The School of Mathematics and Statistics will assume that all its students have read and understood the School policies on the above pages and any individual course policies on the Course Initial Handout and Course Home Page. Lack of knowledge about a policy will not be an excuse for failing to follow the procedures in it.

Course improvement

You will be invited to complete a CATEI survey at the end of the semester to give your feedback on the course.

Contacting the Student Services Office

The School of Mathematics and Statistics web-site is

http://www.maths.unsw.edu.au

In particular, the URL

http://maths.unsw.edu.au/currentstudents/student-services

provides a range of menus to choose from.

All administrative enquiries concerning first year Mathematics courses should be sent to the contact below:

- by email to fy.MathsStats@unsw.edu.au
- by phone to 9385 7011
- or in person in room RC-3088
Aims

The aim of MATH1031 is that by the completion of the course you understand the concepts and techniques involved in the topics listed in the syllabus, and have developed skills in applying these concepts and techniques to the solution of actual problems within your course areas.

New ideas and skills are introduced in lectures with an emphasis on the use of examples taken from the biological sciences. You will then develop these skills by applying them in tutorials and to the computing problems. The use of Maple in MATH1031 provides an opportunity to see how modern computers can be used in a wide variety of mathematical problem solving.

Students often have great difficulty translating between a real world problem and its mathematical representation and so practicing this skill is an important part of MATH1031. The ability to communicate effectively using mathematical language and to think analytically are important learning outcomes for this course.

Graduate Attributes

MATH1031 will provide you with a good knowledge of topics in Calculus and Linear Algebra and show applications in interdisciplinary contexts through lectures and exercises. It will enhance your skills in analytical thinking and problem solving through illustrative examples in lectures and problem based tutorials. The course will also engage you in independent and reflective learning through your independent mastery of tutorial problems and Maple. The mathematical skills that you will develop are generic problem solving skills, based on logical arguments, that can be applied in multidisciplinary work. You will be encouraged to develop your communication skills through active participation in tutorials, and by writing clear, logical arguments when solving problems.

Learning Outcomes

A student should be able to:

• state definitions as specified in the syllabus,
• explain how a theorem relates to specific examples,
• apply the concepts and techniques of the syllabus to solve appropriate problems,
• prove specific and general results given specified assumptions,
• use mathematical and other terminology appropriately to communicate information and understanding,
• use the symbolic computing package Maple as an aid to solve appropriate problems.

Peter Brown
Director of First Year Studies
School of Mathematics and Statistics
fy.MathsStats@unsw.edu.au
APPLICATIONS FOR SPECIAL CONSIDERATION IN
FIRST YEAR MATHEMATICS COURSES SEMESTER 1 2015

If you feel that your performance in, or attendance at, a final examination has been affected by illness or circumstances beyond your control, or if you missed the examination because of illness or other compelling reasons, you may apply for special consideration. Such an application may lead to the granting of additional assessment.

It is essential that you take note of the following rules, which apply to applications for special consideration in all first year Mathematics courses.

1. **Within 3 days** of the affected examination, or at least as soon as possible, you must **submit a request for special consideration to UNSW Student Central ON-LINE.**

   Please refer to link below for How to Apply for Special Consideration,

   [https://my.unsw.edu.au/student/atoz/SpecialConsideration.html#ApplyingforSpecialConsideration](https://my.unsw.edu.au/student/atoz/SpecialConsideration.html#ApplyingforSpecialConsideration)

2. **Please do not expect an immediate response from the School.** All applications will be considered together. See the information below.

3. If you miss a **class test** due to illness or other problems, then you should provide the appropriate documentation to your **tutor** who will record an M. **DO NOT** apply on-line for special consideration for class tests or for on-line or computing tests.

4. If your course involves a MAPLE/MATLAB lab test which you miss, you should contact the lecturer in charge of computing as soon as possible. A resit will be organised for later in the session.

5. **You will NOT be granted additional assessment in a course if your performance in the course (judged by attendance, class tests, assignments and examinations) does not meet a minimal standard.** A total mark of at least 40% on all assessment not affected by a request for special consideration will normally be regarded as the minimal standard for award of additional assessment.

6. It is **YOUR RESPONSIBILITY** to find out FROM THE SCHOOL OF MATHEMATICS AND STATISTICS whether you have been granted additional assessment and when and where the additional assessment examinations will be held. **Do NOT wait to receive official results from the university,** as these results are not normally available until after the Mathematics additional assessment exams have started. Information about award of additional assessment is available from the School of Mathematics and Statistics in the following ways:

   a) A **provisional** list of results in all Mathematics courses and of grants of additional assessment will be available via the Mathematics website. Dates for this will be advised.

   b) A **final** list of results and of grants of additional assessment will be available via the Mathematics website. Dates for this will be advised.

7. The **timetables** for the additional assessment examinations will be available on the Mathematics website at the same time as the provisional list of results.

   The date for Summer session additional assessment examinations will be advised.
8. If you have two additional assessment examinations scheduled for the same time, please consult the School of Mathematics and Statistics Office as soon as possible so that special arrangements can be made.

9. You will need to produce your UNSW Student Card to gain entry to additional assessment examinations.
IMPORTANT NOTES

- The additional assessment examination may be of a different form from the original examination and must be expected to be at least as difficult.

- If you believe that your application for special consideration has not been processed, you should immediately consult the Director of First Year Studies of the School of Mathematics and Statistics (Room 3073 Red Centre).

- If you believe that the above arrangements put you at a substantial disadvantage, you should, at the earliest possible time, send full documentation of the circumstances to the Director of First Year Studies, School of Mathematics and Statistics, University of New South Wales, Sydney, 2052.

In particular, if you suffer from a chronic or ongoing illness that has, or is likely to, put you at a serious disadvantage then you should contact the Student Equity and Disabilities Unit (SEADU) who provide confidential support and advice. Their web site is

http://www.studentequity.unsw.edu.au

SEADU may determine that your condition requires special arrangements for assessment tasks. Once the First Year Office has been notified of these we will make every effort to meet the arrangements specified by SEADU.

Additionally, if you have suffered a serious misadventure during semester then you should provide full documentation to the Director of First Year Studies as soon as possible. In these circumstances it may be possible to arrange discontinuation without failure or to make special examination arrangements.

Professor B. Henry
Head, School of Mathematics and Statistics
UNIVERSITY STATEMENT ON PLAGIARISM

Plagiarism is the presentation of the thoughts or work of another as one's own.\(^1\) Examples include:

- direct duplication of the thoughts or work of another, including by copying work, or knowingly permitting it to be copied. This includes copying material, ideas or concepts from a book, article, report or other written document (whether published or unpublished), composition, artwork, design, drawing, circuitry, computer program or software, web site, Internet, other electronic resource, or another person’s assignment without appropriate acknowledgement
  - paraphrasing another person’s work with very minor changes keeping the meaning, form and/or progression of ideas of the original;
  - piecing together sections of the work of others into a new whole;
  - presenting an assessment item as independent work when it has been produced in whole or part in collusion with other people, for example, another student or a tutor; and,
  - claiming credit for a proportion a work contributed to a group assessment item that is greater than that actually contributed\(^2\).

Submitting an assessment item that has already been submitted for academic credit elsewhere may also be considered plagiarism. The inclusion of the thoughts or work of another with attribution appropriate to the academic discipline does not amount to plagiarism.

Students are reminded of their Rights and Responsibilities in respect of plagiarism, as set out in the University Undergraduate and Postgraduate Handbooks, and are encouraged to seek advice from academic staff whenever necessary to ensure they avoid plagiarism in all its forms.

The Learning Centre website is the central University online resource for staff and student information on plagiarism and academic honesty. It can be located at: www.lc.unsw.edu.au/plagiarism

The Learning Centre also provides substantial educational written materials, workshops, and tutorials to aid students, for example, in:

- correct referencing practices;
- paraphrasing, summarising, essay writing, and time management;
- appropriate use of, and attribution for, a range of materials including text, images, formulae and concepts.

Individual assistance is available on request from The Learning Centre. Students are also reminded that careful time management is an important part of study and one of the identified causes of plagiarism is poor time management. Students should allow sufficient time for research, drafting, and the proper referencing of sources in preparing all assessment items.

\(^{1}\) Based on that proposed to the University of Newcastle by the St James Ethics Centre. Used with kind permission from the University of Newcastle.

\(^{2}\) Adapted with kind permission from the University of Melbourne.
Computing in MATH1031

Why computing?

MATH1031 covers many mathematical techniques that are useful in understanding and predicting the behaviour of biological systems. In order for you to become comfortable with these techniques, the problems presented in lectures and tutorials often involve only small data sets, few variables or simple functions.

The aim of the computing component of this course is to show you how you can use computer algebra software to apply the mathematics you have learnt to solve problems that would be very cumbersome to tackle by hand. In MATH1031, the software we will be using is called Maple. Even for relatively simple problems, Maple can be useful as it does not make simple arithmetic errors!

Whether you continue with mathematics after first year or not, the computing skills you learn with us should still be useful in your university studies and beyond because:

- Your experience with Maple will make it easier to learn other software packages.
- Many other Schools are starting to use packages like Maple.
- Symbolic computing techniques will be useful when you use mathematics in your future career.

UNSW has a policy that all students (no matter what program they are in) should be introduced to the basic techniques of computer use. For students in science and engineering programs, part of this requirement is met by the computing included in first year mathematics.

What sort of computer or applications do I need?

The School of mathematics provides computing labs with everything you will need for computing in MATH1031 (see below). Most of the School’s computers run Linux, and we encourage you to use these. There are also PCs running Microsoft Windows that you may use.

You can access material on UNSW Moodle (the University’s e-learning portal — see 5), the testing environment Maple TA, and the School’s website from almost any web browser anywhere. In addition, if you have your own recent copy of Maple, you will be able to work on the practice tests at home. Maple is available from the UNSW bookshop but you are not expected to buy your own copy.

Note: We recommend that you attempt the actual Maple test in one of the School’s computer labs. If you have your own copy of Maple and wish to attempt the final Maple test from home, we cannot be responsible for the reliability of your computer and internet connection.

What will I have to do and when?

In MATH1031 you will be required to complete an online Maple test which will make up 5% of your final grade. There will also be at least one Maple sub-question in the end of semester exam. The online Maple test will prepare you for the Maple question(s) in the exam.

Questions will be presented to you via Maple TA, you will answer them using Maple and then submit your answers online. A mark and feedback will be available as soon as the test is completed.

You must first complete the test called “declaration” in which you agree to attempt the Maple Test without assistance from any other person. An unlimited number of practice tests will be available from the beginning of week 1 and you must score at least 5/10 in one of these before the end of week 9 to gain access to the actual Maple test. The Maple test counts towards your final MATH1031 mark. Once you have this access, and until 5pm on Friday at the end of week 13, you will be allowed 5 attempts at the Maple test. Your final mark will be the best mark from your 5
attempts. Each attempt at a practice test and each actual Maple test will have a time limit of 1 hour. **Note:** Historically the most common mark for this test is 9 or 10/10.

All the information that you will need will be available on the MATH1031 UNSW Moodle site (see page 5).

To prepare for this test, you should:

1. Watch the introductory videos provided on UNSW Moodle.
2. Work through the introductory material on UNSW Moodle in your own time.
3. Continue to attempt the Maple practice tests (in Maple TA) until you are confident with them. You must score at least 5/10 before the end of week 9 in order to be allowed to attempt the Maple test.

**WARNING:** Your answers to the Maple test must be your own work. You must not receive any help during an attempt at the Maple test.

### Getting started with computing in MATH1031

The MATH1031 module in UNSW Moodle has several short instructional videos illustrating how to access and use all the computing related components of MATH1031. The general introductory videos are located in the Course Materials folder, with videos related to Maple located in the Computing component folder and those related to Maple TA in the Maple TA.

You should use some of your free time in week 1 to go to the Red Centre lab G012 and complete the Maple introductory materials, available in UNSW Moodle, and in Maple TA you should complete the assignment “Using Maple TA”. Consultants will be on duty from 12noon to 4pm each day to help you get started with these tasks.

### Getting further help

You can continue to get help even after the introductory lecture in week 1. There is a wide range of self-help material in the computing pages in the MATH1031 module on UNSW Moodle and this should be the place you check in the first instance.

A **computing consultant** will be available in Room G012 from at least 12noon to 4 pm every weekday until at least the end of week 9. There will be no computing consultants available during week 10 and only a reduced consultation roster in weeks 11 to 13. The consultant will be sitting at one of the **Consultant’s Terminals** at the front of the main blocks of PCs or helping people at their computers and wearing a bright yellow vest. If you have a problem with Maple, ask the consultant.

For all **Maple** problems (but not equipment faults, login problems and password problems) you should see the consultant, or see your tutor if it is a problem with the mathematics involved.

**Equipment faults, login problems** and **password problems** should be notified to the operators at the **Help Desk** (the window in Room M020). Please note that the operators and other staff of the Computer Centre are NOT available to act as computing consultants. They are not experts in Maple.

If all else fails, contact or send an email to the Lecturer in Charge of MATH1031 Computing, Dr. Jonathan Kress (Red Centre Room 4102), email j.kress@unsw.edu.au.

### Computing Facilities

A detailed description of the computing facilities in the School of Mathematics and Statistics is available via documents linked from the web page.
These documents are also available from within the Linux desktop (see page 15). Here we describe only those features needed for MATH1031.

The computing laboratories

The School of Mathematics runs 2 Undergraduate Student Laboratories, containing a network of approximately 150 personal computers (PCs) which run either the Linux or Microsoft Windows operating system (see below). It does not matter which PC you use at any particular session, they all behave the same way.

The School’s laboratories are in rooms G012 and M020 of the Red Centre. Room M020 is through the glass door (and along the corridor) opposite the Mathematics entrance to the Red Centre. Room G012 is down the stairs from the main entrance, and is split into three sections “A”, “B” and “C”. The “A” and “C” sections also provide data projection facilities and are therefore not always available for general use. The “C” section (which is immediately to your left as you enter the lab) is made up of Microsoft Windows computers and mostly used in the teaching of Statistics subjects.

The following table describes the labs:

**M020** has 40 dual boot (Linux/Windows) PCs available for your use except when booked for a class.

**G012A** has 35 Linux terminals, and is often booked for teaching sessions.

**G012B** has 40 Linux terminals and is normally available for general use.

**G012C** has 40 Windows terminals, and is often booked for teaching sessions.

Check the door of G012 to find out when G012A or G012C is booked.

These laboratories also have 2 printers each. The lab printers use the same payment system as the printers in the UNSW Library. For information on the library’s printers system see http://www.library.unsw.edu.au/about/facilities/printing.html

In most cases you will print directly from an application used to display your document. However, the print job will then sit in an electronic queue until you use a terminal next to the printer to authorize use of your credit for printing.

**Hours of Opening**

The laboratories will normally be open as follows:

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<th>M020</th>
<th>G012</th>
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</thead>
<tbody>
<tr>
<td>During semester:</td>
<td>Monday to Friday</td>
<td>9 am to 9 pm</td>
</tr>
<tr>
<td>Week 10</td>
<td>Monday to Friday</td>
<td>9 am to 9 pm</td>
</tr>
<tr>
<td></td>
<td>Saturdays, Sundays</td>
<td>Closed</td>
</tr>
<tr>
<td>During holidays:</td>
<td>Monday to Friday</td>
<td>9 am to 9 pm</td>
</tr>
<tr>
<td>Public holidays and Weekends</td>
<td>Closed</td>
<td>Closed</td>
</tr>
</tbody>
</table>

Any changes to these times will be posted on the door of Room M020.

Remember that there will always be unscheduled periods when the computers are not working because of equipment problems and that this is not a valid excuse for not completing tests on time.
Using the computers

Passwords

The computers in the school labs, UNSW Moodle, Maple TA and the School of Mathematics and Statistics student web portal ALL require your UNSW username (z followed by your student number, e.g. z3900007) and your zPass to log in.

Before you can use your account you must have a valid zPass and it must be unlocked. You can create or unlock your zPass using the UNSW Identity Manager at

https://idm.unsw.edu.au

If you have trouble logging in to a computer in a School of Mathematics and Statistics lab, you should first try resetting your zPass using IDM.

Remember that YOU ARE RESPONSIBLE FOR YOUR ACCOUNT, and any misuse of it by you or anyone else (for example, using the account for anything not related to your mathematics subjects) will be treated as a case of Academic Misconduct. DO NOT GIVE YOUR ZPASS TO ANYONE ELSE. You must NOT write your zPass down anywhere where it can be identified with your student number. If you think someone has found out what your zPass is, change it immediately.

Accounts

If you are enrolled in a Mathematics or Statistics course will be able to log in to the computers in the Mathematics and Statistics computer labs using their zID and zPass. Once logged in will have access to your university wide H drive. Any file that we wish to be preserved after you log out should be stored on your H drive.

If you have trouble logging in to a computer in the lab first try changing your zPass using the UNSW Identity Manager and if that fails, go to the Help Desk window in RC-M020 between 9 am and 5 pm on any weekday.

Using the Linux Desktop

The Linux interface is known as KDE, which stands for K Desktop Environment. It is designed to work in a manner very similar to Microsoft Windows. It is assumed that a windows like environment will be familiar to you.

Note describing the Mathematics and Statistics computer labs will be available from

www.maths.unsw.edu.au/currentstudents/first-year-computing-notes

Remote Access

Two virtual Linux lab machine called sigma and sigma2

sigma.maths.unsw.edu.au and sigma2.maths.unsw.edu.au

are available for remote access from your own laptop or home computer. Sigma has exactly the same software available as one of the Red-Centre linux lab computers (e.g. Maple, MATLAB, etc.). To use this service you will need to download and install the NX client which is freely available for Windows, Mac and Linux. Information on how to download and install this software and use it to connect to sigma is available on UNSW Moodle in the Computing Component section of MATH11031 Alternatively, if you know how, you can use ssh to access sigma.

Please note that because this is a remote service that can be used by many students, you may find that sigma is slow to respond or is unavailable, particularly at times of high demand. Hence you are advised not to rely on sigma at critical times such as close to test deadlines. Using an
actual computer in the lab or software, such as Maple, installed on your own computer will usually be more reliable.

**IMPORTANT**

Our computers are designed to be left on and you will never need to switch one off.

**NEVER SWITCH THE COMPUTER OFF.**

If you are really stuck and nothing seems to be working on your keyboard, report this at the Help Desk.

**DO NOT FORGET TO LOGOUT**

**Code of Conduct**

All students are assumed to be aware of the *Acceptable Use of UNSW ICT Resources* policy, a copy of which is at


In addition, the School of Mathematics and Statistics reserves the right to monitor all use of its computer systems, and to share the monitoring results with the relevant law enforcement authorities. The computing facilities provided by the School of Mathematics and Statistics must be used only for tasks related to the mathematics course(s) for which your computing account has been created. Misuse of computers is a serious offence and will be treated as a case of academic misconduct. This includes damage to or theft of any part of the equipment. A breach of security will be treated as a case of serious academic misconduct. Breach of security includes but is not limited to

- deliberately providing a password to another person (student or otherwise);
- attempting to gain unauthorised access to files within the system ("hacking");
- deliberately introducing computer viruses;
- copying of assignments (by email or any other means).

Electronic mail (email) facilities are provided by the University so that you can communicate with lecturers and tutors. All use of email is monitored and action will be taken against anyone who makes excessive use of email or uses it to send annoying, obscene, sexist or racist messages to other users or to engage in academic misconduct. Internet and other electronic communication services are provided to allow you to access our computers from other parts of the campus and from home and to transfer assignments which have been completed on other computers. These services are NOT provided so that you can play games, watch videos, or indulge in other activities not related to university studies. All electronic communications using the School’s facilities are monitored to ensure that these facilities are being used in a responsible manner. Likewise, the disk space allocated to your account should be used only for keeping files related to your course, and the system administrator may remove any files which are not associated with University work.

These restrictions are imposed because computing resources are limited and there are thousands of other users of the system (over 4000 students with logins for the Red Centre labs). We all have to live and work together and you are expected to be considerate to other users. This is the bottom
line when it comes to acceptable behaviour. If you have any doubts about whether an action is acceptable, don’t do it.

Do not tell anyone else your zPass.

Health and Safety Issues

Students should be aware that using a keyboard or performing any repetitive task for a long uninterrupted period may be associated with physical discomfort and/or muscular or other injury. To lessen the risk of such problems, a break from typing should be taken at regular intervals, a good body position adopted, wrists should be kept straight as much as possible and not rested on a sharp edge.

If you feel pain, numbness, tingling, weakness, cramping, or stiffness in your hands, wrists, arms, shoulder, neck, or back, see a qualified health professional. For further information contact the School of Mathematics and Statistics General Office.

Maple is a registered trademark of Waterloo Maple Inc.

Microsoft Windows is a registered trademark of the Microsoft Corporation.
# REFERENCES FOR MATH1031 (LEC 2 TUE/THU)

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1: Calculus an Applied Approach by Larson and Edwards
2: Mathematics for the Biological Sciences by Arya and Lardner
4: Elementary Linear Algebra by Larson and Edwards, 4th edition

Copies of the above four books can be found in the [LIBRARY](#) 2014-S1
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