



THE AUSTRALIAN NATIONAL UNIVERSITY

# **Department of Computer Science Student Handbook**

# 2008

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Department of Computer Science  
Faculty of Engineering and Information Technology  
College of Engineering and Computer Science  
The Australian National University  
CANBERRA ACT 0200

Phone (02) 6125 4043  
Fax (02) 6125 0010

# Preface

This handbook describes the administrative and practical arrangements that students need to know to study effectively in the Department of Computer Science. The department is one of four in the ANU College of Engineering and Computer Science. It is the centre of undergraduate education in the professional, technical and scientific aspects of computing, in the areas called computer systems, software development and software engineering, computer science, and human-centred computing. The department offers many courses in several degree programs across these areas.

A world-class University such as the ANU is a research-intensive institution. The College of Engineering and Computer Science combines the Faculty of Engineering and IT with the Research School of Information Sciences and Engineering. The strong research activities in the College make it possible for undergraduate students to participate in a research-led education, and you can expect to be taught by staff from both the Faculty and the Research School during your degree program.

Things change fast in computing, and your program structure and its component courses will change during your studies to reflect leading edge changes in professional practice and in knowledge and invention in the discipline. This means that you need to check for changes in the courses we offer each year as you progress through your degree program.

This handbook is the work of many people in the Department of Computer Science. We welcome feedback on what we have left out and what can be improved.

Associate Professor Henry Gardner  
Head, Department of Computer Science

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# Contents

Contents .....	4
<b>Chapter 1: Introduction.....</b>	<b>5</b>
1.1 General aims .....	5
1.2 The nature of the computing discipline .....	5
1.3 Is computing hard?.....	6
<b>Chapter 2: Department Services .....</b>	<b>7</b>
2.1 Introduction.....	7
2.2 Course level services.....	7
2.3 Department-level services.....	7
2.4 Faculty-level services.....	8
<b>Chapter 3: CSIT Building.....</b>	<b>10</b>
3.1 General information .....	10
3.2 Building regulations.....	10
<b>Chapter 4: Teaching Programme.....</b>	<b>13</b>
4.1 Courses.....	13
4.2 Course Websites.....	14
<b>Chapter 5: Enrolment and Registration.....</b>	<b>15</b>
5.1 Introduction.....	15
5.2 Registration with the Department .....	15
5.3 What else do you have to do? .....	16
5.4 Lecture timetable and locations .....	17
<b>Chapter 6: Assessment in Computer Science Courses.....</b>	<b>18</b>
6.1 A global look at assessment.....	18
6.1.1 Formal examinations.....	19
6.1.2 Class examinations.....	19
6.1.3 Assignments .....	19
6.2 Student workload .....	20
6.2.1 Strategies for completing assignments on time .....	21
6.3 Illness, extensions and all that .....	21
6.3.1 Provisions for illness.....	21
6.3.2 Assignment deadlines .....	22
6.4 Misconduct in examinations .....	22
6.5 Collaboration versus misconduct in assignments .....	23
6.5.1 Sensible work practice .....	24
<b>Chapter 7: General Help Services.....</b>	<b>25</b>
<b>Appendix A: Appeals.....</b>	<b>27</b>
<b>Appendix B: Use of University Computing Services.....</b>	<b>28</b>
B.1 Information Infrastructure & Service Rules 2006 .....	28
<b>Appendix C: Use of Computing Laboratories .....</b>	<b>33</b>
C.1 Information Technology Services (Student .....	33
Computer Laboratories) Order 2005.....	33
C.2 User may be required to leave .....	33
C.3 Penalties .....	34

# Chapter 1: Introduction

## 1.1 General aims

The teaching program in the Department of Computer Science addresses a professional education in software engineering and information technology, as well as a scientific education in computer science.

The Department aims to produce graduates with a four-year, professional education in software engineering, or a three-year or four-year technical and professional education in information technology. We also support the study of information systems in the Bachelor of Commerce degrees and of computer science in the Bachelor of Science, and provide service computing technology courses to students of all interests.

Many of the same computer science and information technology courses can also be taken within the Bachelor of Science degree. Students can thereby combine study of a Science discipline with as much computing as they wish, or specialise in computing as a scientific discipline. For specialists, we aim to produce fourth-year Honours graduates who can enter postgraduate studies at the leading international computer science laboratories.

This is a broad set of goals, but they are held together by the study of computing as a university discipline. All of what we do in the teaching program is derived from these commitments.

## 1.2 The nature of the computing discipline

Computing is a new discipline, in academic terms. The oldest computing departments are a little over forty-five years old, while the great majority of departments have been established in the last thirty years. At the ANU, for example, the Department of Computer Science was formally established in 1976.

An awareness has steadily emerged that the computing discipline really is different to the older academic disciplines, and that some (but not all) students find it hard.

This was considered in an influential report (see the report “Computing as a discipline” of the Association of Computing Machinery Task Force on the Core of Computer Science, Communications of the ACM, 32/1, Jan 1989, p. 9; available on the web through the ACM Portal) which identified the following paradigms and forcefully argued that all three are of equal importance to the computing discipline.

### **Theory**

This has its roots in mathematics. It involves the derivation of properties of certain defined objects of study, using the methods of mathematics and logic.

### **Abstraction**

This has its roots in engineering, the natural sciences, and in the experimental scientific method. It involves the identification of an abstraction or model. Predictions of this model are made and tested by experiment.

## Design

This has its roots in engineering. It involves the design and construction of a desired system and its subsequent testing.

To quote from the ACM report:

*Computing sits at the crossroads among the central processes of applied mathematics, science, and engineering. The three processes are of equal--and fundamental--importance in the discipline, which is a unique blend of interaction among theory, abstraction and design. The binding forces are a common interest in experimentation and design as information transformers, a common interest in computational support of the stages of those processes, and a common interest in efficiency. ( p. 11)*

Put another way, the mastery of the computing discipline involves working with a wider range of paradigms or ways of thinking than with any other academic discipline.

The broadening scope of computing and the enormous and rapid changes it is bringing to the world mean that the courses that are the “right” ingredients of a university degree program in computing are always changing. The courses that you will see on offer when you start a three-four-or five-year course will change maybe two or three times to keep the program up to date.

## 1.3 Is computing hard? Is studying computing hard?

It seems clear that some people find it hard. The following observations might be relevant as to why this is so.

It is an empirical fact that some computing professionals are ten times more productive than the average. Such an extreme range of productivity is said to be very unusual in other professions and to be unique to computing. No adequate explanation has emerged, but it is thought to be related to the multi-paradigm nature of computing just indicated.

Similarly it is an empirical fact that some students can complete a programming assignment much faster than other, students who are also very competent. This means that where some students might take ten hours to complete an assignment, other students might take fifty hours to complete it to the same level of performance. The problem is not peculiar to computing at the ANU, but applies across to computing departments across Australia and across the world.

If this situation is allowed to remain, then computing studies can cause a workload blow out. In relative terms, computing courses will take far more time than other courses, and there is not enough time in the study week to properly address the other courses.

Rather than being too hard, then, perhaps the question is: “does the study of computing take too much time?” As teaching academics we engage in more debate (and are subject to more criticism) over this question than any other.

It is clear that

- we, the academics, must adopt strategies to contain workload blow out, and that
- you, the students, must adopt strategies to contain workload blow out.

Such strategies are discussed in several places later in this handbook, and are a focus of the interaction between academic staff and students.

# Chapter 2: Department Services

## 2.1 Introduction

Students need to understand what the Department is responsible for and what it is not responsible for. We are happy to accept responsibility for the former, but not for the latter.

In general terms, the Department teaches a range of computing courses at first-year, second-year, third-year, fourth-year, Graduate Diploma and Masters Level. The students who take these courses are enrolled in a wide range of programs, and count the courses towards their programs. The Department is responsible for these courses, for their content, and for reporting the results.

The Department is *not* responsible for the programs that the courses are counted towards. Rather, a program is administered by the relevant Faculty. For example, if you are enrolled in the BSc degree program then the question of whether a particular computer science course can be counted towards your program must be addressed to the Faculty of Science Office. BCS, BIT and BSEng programs are handled by the Faculty of Engineering and Information Technology; BComm by the Faculty of Commerce.

The Department is *not* responsible for admission to the ANU or for admission to any particular program. Rather, we see students after they have been admitted to the university and have been enrolled in a particular program.

## 2.2 Course level services

In each course the lecturer-in-charge should make a clear statement about the services that the course provides. Generally the Department goes to some considerable trouble to set up small-group sessions. These are either tutorials, where a tutor works with a group of perhaps 20 students, or programming laboratory classes, where a demonstrator works with a group of perhaps 20 students. These classes are your usual opportunity to ask questions. In addition, a course might have an electronic question-and-answer service, based on an electronic bulletin board or e-mail (although this is up to the lecturer).

At times, of course, it is appropriate to see the course lecturer. Typically the lecturer will report 'office hours', during which he or she is available without appointment, or will provide a mechanism for making an appointment.

## 2.3 Department-level services

There are issues, concerns and grievances that you will want to discuss with a Department representative rather than your course lecturer. At times you may want to discuss an issue with the Head of Department. Appointments should be made through the Department Office. The office is open Monday to Friday from 9am to 4pm, apart from breaks. The phone number is 6125 4043 (54043 internally), fax number is 6125 0010 and you can e-mail to [administrator@cs.anu.edu.au](mailto:administrator@cs.anu.edu.au)

## 2.4 Faculty-level services

The Associate Director, Education, of the College of Engineering and Computer Science (Prof. Mick Cardew-Hall at the time of writing) is a significant position, in that he is the *prescribed authority* for all matters concerned with your enrolment and progress towards the degree.

For obvious reasons, most of the student interaction associated with this task is delegated to the following Faculty representatives (names current at the time of writing):

Associate Deans

Undergraduates:	Dr Ramesh Sankaranarayana (DCS)
	Dr Andrian Lowe (Eng)
Research	Dr Alistair Rendell – (Faculty)

An Associate Dean should be consulted on all matters of program enrolment and program progress.

Undergraduates can arrange appointments through the Department Student Administrator.

Student Administration

For all administrative procedures relating to students of the College of Engineering and Computer Science and your enrolment at the University such as:

Academic Progress  
Advanced Standing  
Appeals  
Graduation  
Program advice,  
Program leave  
Program transfers  
Scholarships  
Welfare

See the College Student Advisor

Jill Mayo

Monday – Friday 9.00am – 5.00pm

Level 2, Ian Ross Building 32a

T: 6125 0677

E: [jill.mayo@anu.edu.au](mailto:jill.mayo@anu.edu.au)

## 2.5 Is there democracy?

The short answer is “yes”.

Students have representation on the informal Department Committee Forum and representation on the “Department Committee”. The membership of this committee is:

- academic staff,
- student representatives (one or more from each academic year), and
- representatives of administrative and programming staff.

The Department Committee usually will meet once per semester. This committee may “advise and recommend to” the Head of Department on a wide range of issues (from the contents of drink machines to the structure of assessment!).

There are also a number of formal university committees at higher levels where student representation is required. These include:

- College of Engineering and Computer Science Education Committee
- College of Engineering and Computer Science Advisory Board

Students have a vote on these committees (the vote of a student member is as valid as the vote of a staff member). The University welcomes serious involvement. In practice student members are drawn from those students who have participated in the Department Committee, with an election where necessary.

# Chapter 3: CSIT Building

## 3.1 General information

In early 1995 the Department of Computer Science moved into the north wing of the Computer Science and Information Technology (CSIT) building (map reference 108). In 2000 it also occupied part of the Ian Ross Building next door.

In approximate terms the use of the CSIT building is

- Level 1** Student facilities, including programming laboratories, tutorial rooms.
- Level 2** Staff and research facilities, academic and general staff offices, machine room, project laboratories, postgraduate coursework laboratories and the TSG area.
- Level 3** Staff and administrative facilities including Departmental Office, academic and general staff offices, meeting room and the graduate student corrals.

The normal building opening hours are 8.30 a.m. to 5.30 p.m. Outside these hours undergraduate students will have certain access to the facilities on Level 1 through the Student Entrances, controlled by the student card. Students have no access to the rest of the building. It is expected that 24-hour access will be provided to a subset of the programming laboratories.

A floor plan of level 1 is provided over the page. A full building directory is provided in the student lobby Level 1. The telephones in labs are only used for internal calls or for external calls to free numbers.

## 3.2 Building regulations

You should understand that the Australian taxpayer in general and the ANU in particular have gone to a lot of expense to provide teaching facilities in the CSIT building. This is done on an implied contract that there is a common sense and sensible use of the building by academics and students.

The pragmatics of the situation, however, is that we cannot rely on an unstated contract. At times explicit regulations might be posted, such as:

- **No smoking** is permitted in the building; and
- **No eating** or **drinking** is permitted in laboratories or tutorial rooms.

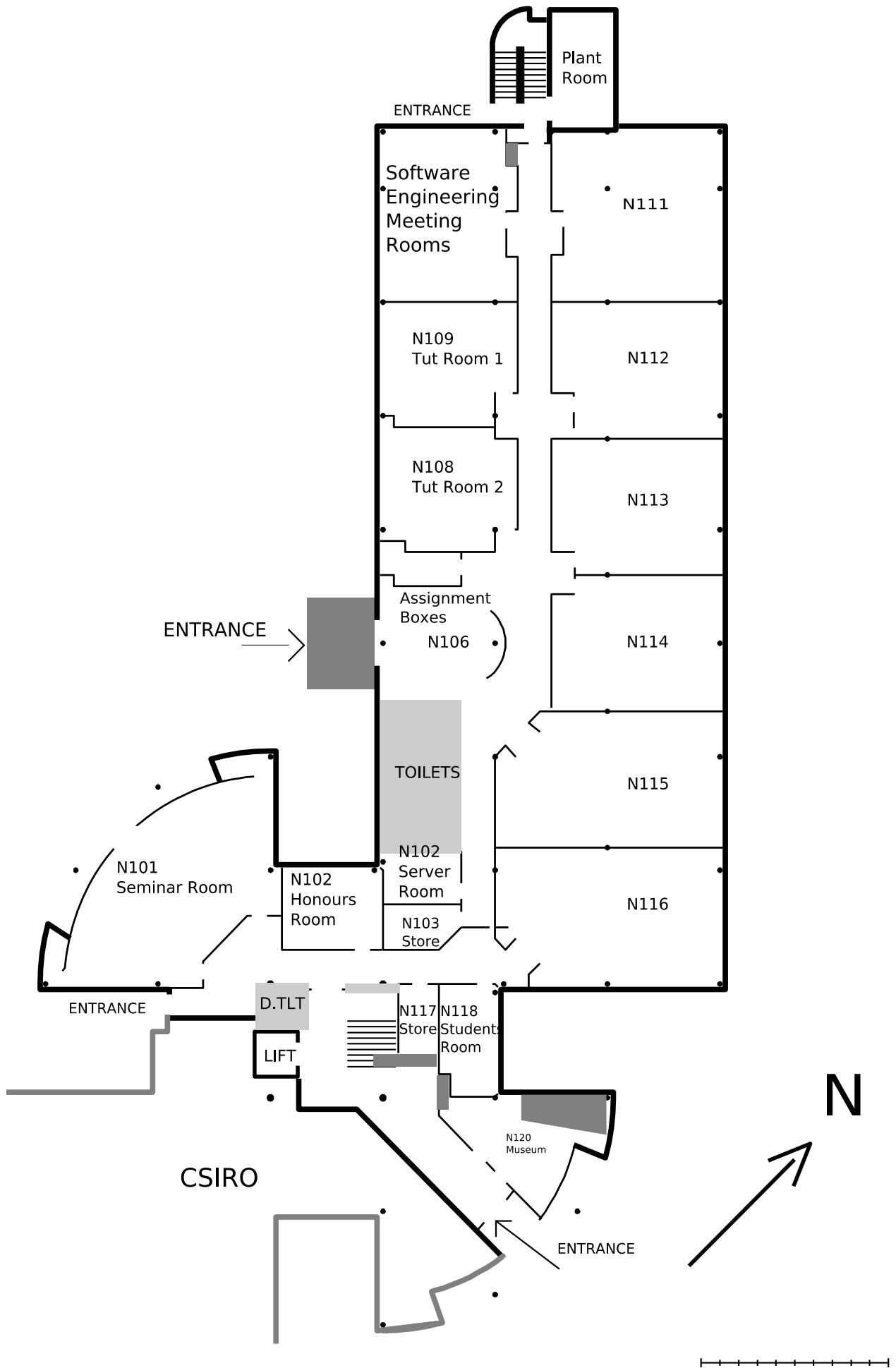
At other times, the regulations may be implicit, such as:

- Equipment must only be used for its intended purpose;
- Equipment must not be moved from its assigned location;
- Furniture must only be used for its intended purpose; and furniture must not be moved from its assigned location (in particular, gas lift chairs must not be taken out of computer labs).

Building regulations, both explicit and implicit, must be considered to be in force. If situations arise where building usage is unacceptable, for instance, where

- equipment and furniture is broken, or
- cleaners must cope with areas that have been trashed,

and where the perpetrators are unknown, then the general amenity of the building cannot be guaranteed. The Department's budget for replacement furniture is not bottomless and the cleaners' patience for cleaning up mess is not endless. In these cases, then, the behaviour of a few might cause the inconvenience of the many.



CS&IT Building: ANU Wing, Level 1

# Chapter 4: Teaching Programme

As mentioned in chapter 1, the fast rate of change in the computing discipline means that our degree programs also change frequently. Degree programs also allow for various courses to be taken from other departments.

## 4.1 Courses

At the time of writing, courses taught by the Department of Computer Science in 2008 were the following. See the [Study@ANU](#) pages and the Department's web site for more details.

It teaches the following first-year courses:

COMP1100	Introduction to Programming and Algorithms
COMP1110/1510	Introduction to Software Engineering Systems / Foundations of Software Engineering
COMP1130	Data Structures & Algorithms I
COMP1140	Data Structures & Algorithms II
COMP1200	Perspectives on Computing
COMP1710	Tools for New Media and the Web

It teaches these second-year courses: (some of these may be taken by students in their first year)

COMP2100/2500	Software Construction /for Software Engineers
COMP2110/2510	Software Design /for Software Engineers
COMP2300	Introduction to Computer Systems
COMP2310	Concurrent and Distributed Systems
COMP2400/6240	Relational Databases
COMP2410/6340	Networked Information Systems
COMP2600	Formal Methods in Software Engineering
COMP2720	Automating Tools for New Media
COMP2750	Java Programming for New Media

It teaches these third-year courses:

COMP3006	Computer Science Research Project
COMP3100/3500	Software Engineering Projects (annual)
COMP3110/6311	Software Analysis and Design
COMP3120	Managing Software Development
COMP3130	Computer Science Research Project
COMP3300 [even years]	Operating Systems
COMP3310/6331	Computer Networks
COMP3320 [even years]	High Performance Scientific Computation
COMP3410	Information Technology for Electronic Commerce
COMP3420 [even years]	Advanced Databases and Data Mining
COMP3600/6466	Algorithms
COMP3620/6320	Artificial Intelligence
COMP3630/6363	Theory of Computation
COMP3650/6365 [odd years]	<i>System Architectural Understanding &amp; the Human Brain</i>
COMP3700/3710	Topics in Software Engineering/Computer Science
COMP3750	Project Work in Computer Systems
COMP3760	Project Work in Information Systems
COMP3900/6390	HCI Design and Evaluation

It teaches these fourth-year courses:

COMP4130	Managing Software Quality and Process
COMP4211	Engineering Law
COMP4300/6430 [odd years]	Parallel Systems
COMP4330 [odd years]	Real-Time and Embedded Systems
COMP4500	Software Engineering Projects
COMP4610/6461 [odd years]	Computer Graphics
COMP4630/6463	Overview of Logic & Computation
COMP4670/6467	Introduction to Statistical Machine Learning
COMP4700/4710	Topics in Software Engineering
COMP4720/4730	Project Work in Software Eng I & II
COMP4800	Industrial Experience
COMP4005/INFT4005	Fourth Year Honours - Computer Science / Information Technology

Other graduate courses are:

COMP6442	Software Construction for eScience
COMP6450	Software Engineering Project
COMP6700	Introductory Programming
COMP6701/6702/6703/6720	eScience projects
COMP8100	Requirements Elicitation and Analysis
COMP8110	Managing Software Project in a System Context
COMP8120	System/Software Development Methodologists
COMP8130 [even years]	Verification and Validation Approaches
COMP8180	Systems and Software Safety
COMP8140 [odd years]	Advanced Real-Time Systems
COMP8150 [odd years]	Advanced Software Architecture
COMP8170	Software Process Improvement Techniques
COMP8400	Data Mining
COMP8601/2	Research Project
COMP8640	Automated Reasoning
COMP8660	Readings in Statistical Machine Learning
COMP8700/10	Topics in Software Engineer I & II
COMP8720/30	Project Work in Software Engineer I & II
COMP8740	Artificial Intelligence Project
COMP8750	Computer Science Project
COMP8760	Computer Science Project
COMP8770	eScience Project
COMP8780	Human Centered Computer Project
COMP8790	Software Engineering Project
COMP8900	Human Computer Interaction Design & Evaluation (subject to approval)

## 4.2 Course Websites

Each of these undergraduate courses has a home webpage on the department's student directory, e.g. at <http://cs.anu.edu.au/student/COMP1100> for COMP1100. Lecturers will use this course website to post a detailed course description, and unless otherwise stated, all of the notes, assignments, and bulletins. Students are expected to check their course websites regularly. Many courses also have an interactive forum for announcements and discussion.

# Chapter 5: Enrolment and Registration

## 5.1 Introduction

In the Department of Computer Science we use the term *enrolment* to refer to the process relating to choice of programs and courses, and *registration* to refer to the process relating to choice of tutorials and laboratory groups. Students must do both parts of the process for Undergraduate courses.

It is *your* responsibility to ensure that you are formally enrolled in the courses you are intending to study during the academic year. You enrol in courses on-line through ISIS (Interactive Student Information System). You do *not* enrol with the Department of Computer Science.

The only time you need to consult the Department for course enrolment is when you do not have the prerequisites for enrolment in a particular course. Under some circumstances the relevant Associate Dean i.e. CS or Eng, may give permission to enrol without the prerequisites, and the Faculty Office will then complete the enrolment. If you wish to apply to enrol without a prerequisite, you do this via an '*Approval to waive Prerequisite(s)*' form available from the Department's office and lodge the approved waiver at the Faculty Office. You may also discuss the situation with the relevant course coordinator if the relevant Associate Dean is unavailable.

Most of you will have enrolled in computing courses (see Chapter 4) during enrolment week. You have up until the second Friday in the semester to change your enrolment. The Department of Computer Science has no quotas in these courses. You do *not* need permission from us to enrol in first-year courses. There may be, however, Faculty Rules that apply.

In the meantime it is *recommended that you follow the guidelines* outlined below, at the start of the academic year. The University has enrolment procedures that must be met in order to meet government legislation in the form of census dates. To avoid financial and academic penalty it is recommended that you become familiar with important dates in the academic calendar.

## 5.2 Registration with the Department

The most important information is your course enrolments for the coming semester. The Department gets this information automatically from the University, BUT: *no matter how long ago you paid your fees or enrolled in subjects through ISIS, the Department only gets to see this information from Student Administration after you collect your student card!* So, the best way to speed things up is to collect your new student card, or have your existing student card re-validated, as soon as possible. On the morning of the next business day after collecting your card, we should have your DCS course enrolment data.

Once we get your DCS course enrolment data, a computer account will be created (or reactivated, for later year students) for you on the DCS student systems. To login to the account, you will use your University ID as the username, and your current campus-wide PAC (Personal Access Code) as your password. You can change your PAC using the ANUBIS system or by visiting a Student Consultant at the InfoPlace in the Chifley Library.

## 5.3 Class Timetables

The University timetable system schedules the lectures for nearly all undergraduate courses. You should ensure that you are able to attend all of the lectures in your courses (unless they are marked as “repeat” lectures)

The timetable system also schedules tutorials and laboratory classes. These are small group classes and you have some choice of which class you attend. In the Department of Computer Science we provide a powerful automatic booking system called STReaMS that you must use to register your choice.

During Orientation Week students should register for tutorials and/or laboratories for all their computing courses. Registration will be available until the end of week 1 (first teaching week of semester), but classes fill up on a first-come first-served basis, so early registration is strongly advised.

Registration for courses is made using a computer system called StReaMS (“Student Registration and Marks System) to record your choices. The system will be available for students registering for first and later year courses in the computer laboratories on Level 1 (ground floor) of the CSIT building, or on the web at: <http://cs.anu.edu.au/streams>

In selected laboratories, there are notices explaining how to register. There are also notices giving the tutorial and laboratory times for each course. To save time, think about which classes you prefer *before* sitting down at a terminal.

**When you use the registration system, make sure you have your student number, PAC (personal access code), and timetable with you.**

## 5.4 What else do you have to do?

The standard University arrangement is that a wide range of teaching material is made available as ‘handouts’, either as a collection at the start of the semester or as needed through the course. Many handouts are available only from the course websites. Large documents, such as lecture notes or computer manuals, are not included in this arrangement but need to be purchased by you.

Some courses have an associated *Information Pack*. In addition there is a reference manual for the computing facilities (with which this document is distributed). Some of these packs must be bought by students by first paying the appropriate amount to the University Cashier, in favour of the Department of Computer Science; your receipt can then be exchanged for the packs you need. Distribution of the packs occurs at set hours in Orientation Week and week 1. See the noticeboard for details.

Most courses in Computer Science provide all the extra material online through the course website, at no charge.

## 5.5 Lecture timetable and locations

You should consult the *University timetable* for lecture times. See the university timetable web page <http://timetable.anu.edu.au>. If you have a clash of class times, tell the course lecturer as soon as possible (email or in person).

# Chapter 6: Assessment in Computer Science Courses

Assessment is the focus of a great deal of effort and consumes a great deal of nervous energy. This section attempts to place assessment in perspective, and to bring together some of the issues that are relevant to the assessment process.

## 6.1 A global look at assessment

The Department describes the objectives of its courses in terms of the skills that a student will gain from the course. A typical statement is:

*At the completion of this course the student will be able to*

- *understand the theory and practice of several methods of expressing and managing concurrency,*
- *read and write programs in the C language in the Unix programming environment,*
- *read and write programs in a concurrent programming environment.*

When the Chair of Examiners awards a student a pass grade in a course he or she is attesting to the university and to future employers that the student does in fact have those skills. This judgement is based on assessment.

The assessment categories, and some of their more obvious characteristics, include the following.

### **Formal examinations**

The end-of-course examinations fall into this category. They are run by the Examinations Section **not** by the Department. They are carried out under strict invigilation and attendance is carefully recorded. For most courses they are two or three hours in length. They are one of the fairest ways of evaluating a student's competence in a course.

### **Class examinations**

Mid-semester examinations fall into this category. The academic staff responsible for the course conducts these exams. Typically they are conducted in a timetabled lecture session, and are one hour in length.

### **Assignments**

Assignments involve a task specified by the lecturer, with a submission by the student in a nominated format. They may be computer programming, descriptive writing, or mathematical analysis.

Class examinations and assignments are progressive or 'continuous' assessment, in that they are completed part way through the course. The most important way for students to get feedback on their learning is to look at the marked assignment or class exam paper, and lecturers and tutors will often put a lot of effort into marking papers with comments as well as numerical marks. The final

examination at the conclusion of the course determines whether a student has achieved an acceptable competence in the subject matter, and these exams provide detailed feedback.

In each course the Lecturer in Charge is responsible for determining the system of assessment. Lecturers must explain and discuss the assessment system with students, but the lecturer decides what it will be. The assessment scheme for the course will be published in the first week of the semester and discussed in classes in week 2. Any changes after week 3 will be rare. The Departments general pattern is a standard 70-30 split between examination and continuous assessment across almost all computing courses. (This is to avoid one course soaking up an unfair amount of student effort by having a disproportionate amount of continuous assessment).

The overall result for a course is subject to Examinations (*The Faculties*) Rules, which can be found on the ANU website. A quick reference version is at:

<http://www.anu.edu.au/sas/examinations/index.php>

*You should read these rules at least once during your university career.*

The Faculty of Engineering and Information Technology has a formal appeal mechanism which applies to the case where a student wishes to dispute the mark awarded for a course or the mark awarded for any component of the assessment for a course. This is described in Appendix A of this Handbook.

### **6.1.1 Formal examinations**

Formal examinations essentially have a certification role. They are intended to attest that student has reached an acceptable standard in the material of the course. They will typically consist of questions across the full syllabus of the course.

There is, under normal circumstances, *no feedback* to the student about the final examination apart from the mark. You may seek to discuss your paper with the lecturer, if you think that such a discussion will be fruitful, but you are not permitted to contact the lecturer until after you are officially notified of the result for the course. You are allowed to read through your marked exam paper later, by making an appointment.

### **6.1.2 Class examinations**

An essential characteristic of a class examination (commonly called a Quiz) is that it provides feedback to the student. A class examination is intended to give you an idea of what you do know, and to give you an idea of what you are expected to know but don't know. In some cases such an examination provides you with a salutary shock.

Typically you will get your examination paper returned to you with marks and perhaps annotated as to where you were wrong.

### **6.1.3 Assignments**

An assignment involves the application and the extension of the material and the concepts that have been presented in lectures and textbooks. This application should cause you to think through the issues involved and come to a better understanding than you would otherwise. Assignments, particularly programming assignments, have an operational and a practical aspect to them. The engineering aspects of computing are about actually *constructing* complicated beasts called program systems. This construction cannot be learned from a book but must be learned through laboratory experiment and experience.

The details of what is required for an assignment and the format of its submission will vary between courses. Some may require electronic submissions; some may only take written or printed submissions. You should carefully note the format required before you start work. Many assignments will require a report, not merely a program. Some guidelines for writing reports are in this handbook as Appendix B.

Your assignment submission is normally marked by your tutor. A key issue about assignments is the feedback that the tutor can give you about the quality of the understanding and constructive skills that are represented in the assignment submission. You will get your submission back, marked and annotated. A discussion of the assignment issues may be used as the focus of a subsequent tutorial session. The feedback is completed when you apply the ideas discussed in your next assignment and demonstrate them in an examination.

We undertake to:

- return your submission in a timely fashion. Our objective is to return the material generally within three weeks of the submission deadline;
- provide appropriate feedback. This may take the form of annotations to your submission, the provision of a 'standard solution' to the problem, a discussion in a tutorial session, or a combination of these;
- carefully monitor the workload of the assignment components. Each assignment specification will involve an estimate of the time that we think the assignment will take and you are asked to state with your submission how long it actually took. This will help us with our estimates and with possible revision of the courses assessment scheme (for example, if an assignment turned out to be much harder than expected then it might be given a greater weight).

Generally there will not be any large assignments due after week 12 in any semester.

## 6.2 Student workload

We expect an "average" student to spend about 130-150 hours work on a 6 unit course. This includes time spent in lectures and supervised laboratories, independent study and assignments. But it does *not* include the time you spend studying for your final examination and the exam itself. Here is one possible breakdown of this workload:

- 3 lectures/week over 12 weeks plus 1 hr of study for each hr of lecture makes 72 hours
- 6 labs at 2 hrs with 2hrs work outside of labs makes 24 hours
- final week review lectures (plus one hr study) makes 4 hours
- two assignments at 30-50 hours (at 1 to 1.5 hours per percentage mark)

Of course, this breakdown will vary between courses and between students. In particular, students who are new to programming may need to spend quite some time in computer labs in order to "get the knack". As we observed in the first chapter, some people are always slower than others to complete programming assignments.

We urge all of you to study continuously during the semester rather than waiting for the assignment and examination rush. Review your lectures each day and ask yourself if you really understand them. Take the computer laboratory sessions seriously and construct your own little lab exercises to experiment with the lecture and laboratory material. Look at sources outside of the prescribed textbook. Study provided solutions to lab and assignment exercises and understand whether and why your solutions might be improved!

We label each assignment with an estimate of the time it will take to complete. In view of the nature of the computing discipline discussed earlier (in Section 1.3), we might expect two-thirds of the class to complete the assignment in this time.

The number of seats in computer laboratories is carefully estimated ahead of each academic year. This number must necessarily include a reasonable averaging effect, and it cannot accommodate very high, peak loads. If two weeks is allocated to a programming assignment the wise student will work steadily and progressively through the two-week period. It could be quite foolish to attempt to complete the assignment on the night before the deadline, because there may be no available seats and the printers, file servers and networks might be overloaded! Also, it might take longer than you think. So, start working early and budget your time wisely.

### **6.2.1 Strategies for completing assignments on time**

Here are two distinct ways of attacking a programming assignment.

- 1) By working on it until the program “works”, no matter how long that takes. As indicated above, this could sometimes take a very long time indeed.
- 2) By spending a fixed amount of time on it, and arranging the submission to show that you have completed the essential structure of the program, and that you can clearly describe the nature of the completed program.

At times, you should consider using strategy (2). While you might not get “full” marks you may well get acceptable marks for a reasonable expenditure of effort.

Strategy (2) is not as strange as it might first seem. Perhaps you have always followed strategy (1) through your secondary studies. Part way through your university studies you might realise that you do *not* have time to complete every task in an absolute sense. Everything is done to a time budget, and every task is a compromise between what it would be nice to do and what there is time to do.

A third strategy for completing an assignment on time is to copy it, or part of it, from another student. This is a bad strategy. It will amount to serious misconduct as will be described below (6.4).

## **6.3 Illness, extensions and all that**

The great majority of students submit all assignments by the nominated deadlines and attend all examinations. The ANU system will accommodate late assignments and missed examinations in some *very exceptional circumstances*.

### **6.3.1 Provisions for illness**

There is a whole section in the *Examinations (The Faculties) Rules* that relate to students whose studies are affected by illness, <http://www.anu.edu.au/sas/examinations/index.php> One provision relates to sickness during a course. <http://www.anu.edu.au/sas/examinations/index.php#illness>

*You should read these rules at least once in your academic career*

If you believe your academic performance in a course, during an examination or during the session/semester, has been adversely affected by illness, misadventure or other circumstances beyond your control, you may apply for special consideration. Requests should be made on the appropriate form available by downloading from: [www.anu.edu.au/sas/examinations](http://www.anu.edu.au/sas/examinations) or obtained

from the Department general office. The completed form should be lodged with the Department responsible for the course(s) for which you are seeking special consideration as soon as possible.

Supporting documentation from any relevant independent person (or authority) including health professionals and/or ANU Disability Advisers **must** accompany the completed form.

This form is also used to apply for extensions on an assignment(s). It is always better to do this before the assignment deadline.

### **6.3.2 Assignment deadlines**

Assignment deadlines will be extended only in exceptional circumstances. One of these is illness confining you to bed, supported by a medical certificate, as noted above. Other reasons such as serious family matters, unexpected requirements to travel interstate, will be considered.

You should use the same form 'Application for Special Consideration'. Send an email or phone the lecturer as soon as you can even if you cannot use the form.

The Department has no fixed policy on extensions to assignment deadlines. Rather, the Lecturer in Charge for a course will provide a statement outlining how such requests are processed. Equally, the Department has no fixed policy on penalties for late submissions. The Lecturer in Charge for a course will provide a statement of the policy that applies to that course.

## **6.4 Misconduct in examinations**

The University takes any form of misconduct very seriously. The University rules include *The Discipline Rules* *You should also read these rules at least once in your academic career.*

The basic rule is that "misconduct" may cause suspension from the University, cancellation of a grade for a course or cancellation of a degree.

One form is "misconduct in relation to an examination."

Here 'examination' means any component of assessment (examination or assignment). Further, 'misconduct' is defined to include:

- cheating;
- plagiarism, including copying; whether with or without the knowledge or consent of that other person;
- except with the approval of the prescribed authority, submitting for an examination any work previously submitted for examination;
- failing to comply with the University's instructions to examination candidates at, or in relation to, an examination; and
- acting, or assisting another person to act, dishonestly in or in connection with an examination.

The Rule also includes a very detailed statement of the procedure that is to be followed in a case of misconduct, including appeal mechanisms.

Misconduct in examination is a serious offence indeed, and one that is taken very seriously by the Department. The penalties that can be imposed under these rules are correspondingly serious. A typical penalty is that enrolment in the course is cancelled.

## 6.5 Collaboration versus misconduct in assignments

The computing discipline has a very strong experimental component, and this aspect of the discipline is addressed through constructive assignments, where you actually learn experimental and constructive skills. In graduating with a computing degree it is clear that the institution attests that you have a range of constructive skills. You do not just learn to describe program systems. Rather, you gain considerable experience through the construction of a range of different (representative) systems. The employer expects this experience base in a computing graduate.

In a strong sense, then, the department needs to attest that experimental work is actually carried out by you and that the typical product of experimental work (a submitted assignment report and program) is in fact your work.

In the case where a major submission is simply not the work of the student (unless it is stated clearly that it is a 'group' work) then it may well be a plagiarism offence under the Discipline Rules (above). If such an offence is found and proven, then enrolment in the course may be cancelled.

In other cases the submission may be only partly the work of the student. To the extent that it is the work of someone else, and the work submitted does not represent the experience and skill of the student, then it is unacceptable. It cannot be used to attest a student's skills if it is not essentially the work of the student. In this case the assignment will be rejected, in part or in full.

To be specific, this situation commonly becomes evident when two or more assignments are submitted that are strongly similar. By this we mean that it is clear that there is essentially a single piece of work that is being submitted (as independent work) by more than one student. You should be warned that the Department has tools that are used to compare all program submissions to a particular assignment and to report programs that are strongly similar. The programs so reported are then carefully checked by the Lecturer-in-Charge.

The situation often arises through an excessive degree of collaboration rather than cheating or plagiarism. The following are examples of unacceptable collaboration.

- 1) Student A is given a copy of work done by student B and copies significant portions of it into his or her own submission perhaps with modifications. The intellectual work is done by student B, yet it is represented by student A as his or her own work.
- 2) Student C and student D work together and each do half the assignment. They then combine their efforts and each submit a complete assignment as their own work.
- 3) Student E writes a program with major logical errors. Student F then corrects and rewrites the program to the extent that it can no longer be represented as the work of student E. In fact it probably looks a lot like the submission of student F.
- 4) Students G and H both receive a great deal of help from an expert J (perhaps J is a college tutor, or is a student who has completed the course) In fact, J essentially writes the assignment for G and H, and their submissions are hence strongly similar.

Each of these cases result in submissions that are strongly similar. They are quite easily detected. All of the situations are unacceptable, and all of the submitted work will be rejected, in part or in full. Even in scenario 3, we will reject the work of student F since he has contributed to his work essentially being submitted twice, with different attributions.

On the other hand your computing education will involve many situations of *sensible and acceptable collaboration*.

- In many courses one of the assignments will explicitly state that work will be done in pairs or in teams, and all students are expected to contribute. This is called a "group assignment". In this case a joint submission is obviously what we expect.

There are other examples where you can improve your work by working with other people, but you must make sure you do not go too far. Here are some examples of what is acceptable:

- Two or more students discuss an assignment to the extent that the relevant computing principles are identified and an informal design of the program solution is developed. The students then complete the assignment independently and each construct a corresponding program.
- Student G writes a program with logical errors. Student H analyses the program along with student G and helps identify the errors. The *relevant corrections* are then designed and made by student G. Student H submits a *different program written independently* of student G.

In this case the students have each learned the intended lessons and skills of the assignment. Invariably the solution will show the writer's own style and strong similarity will not occur. Indeed such situations will often be established and encouraged by us. In tutorials, groups of students will often be set to collaborate on a problem. In programming laboratories, a demonstrator will typically seek to interact with a small group of students who are all working on the same problem.

But, assignments produced via excessive collaboration cannot be accepted as independent work.

### **6.5.1 Sensible work practice**

You should make sure that other people cannot read your assignment solutions. If your work is copied without your knowledge and submitted by another student then two similar solutions will have been submitted. The situation is identical to a scenario of excessive collaboration, as explained above, and potentially we will reject both submissions. It takes time and effort to establish which is the original (genuine) solution. You should thus be careful with file protections (do not leave your files world or group readable), and you should promptly collect printer output.

You should not give a copy of your assignment program to another student. It could be broadcast further without your knowledge and submitted by a third student. Again it will take time and effort to establish which is the original (genuine) solution. Never email a program 'just to show' someone your version.

# Chapter 7: General Help Services

Life at university can sometimes be a bewildering experience. When things go wrong, to whom can you turn? This section attempts to give some pointers on what options are available to students in a broad range of contexts.

## **Emergencies**

From all university phone extensions (not pay phones) you can dial '52249' to reach the switchboard (out of hours this reaches campus security). They will inform the relevant authority.

## **Counselling**

The university's counselling centre is able to assist with a range of issues that may be causing concern to students. They can be contacted on extension '52442', or at the Health and Counselling Building, North Road.

## **Security**

If you require campus security, dial '52249'. Additionally, each laboratory in the CSIT building is fitted with a red 'Emergency Only' button that will alert campus security when pressed. If you are working at night on campus (perhaps in a computing laboratory or the library), campus security is available to escort you safely off campus - call them by phone.

## **Discrimination and Harassment**

The Australian National University is committed to providing a study environment that is safe, fair and free from discrimination and harassment for all members of the University community.

Discrimination is defined as unfair or inequitable treatment on the basis of a person's race, colour, sex, sexual preference or orientation, marital status, pregnancy or potential pregnancy, status as carer, age, disability, ethnic or national origin, breastfeeding requirements, religious or political affiliation, or any other attributes as defined in any legislation that applies to a University activity.

Harassment is defined as behaviour, comments or images, that are unwelcome, offensive or intimidating, and that, in the circumstances, a reasonable person should have expected would be offensive or intimidating.

Under the University's new policy for grievance resolution, students can make a complaint by following the procedures that are available on the website for dealing with discrimination or harassment. University-wide contacts can assist in explaining the University policy on grievance resolution and how the process works.

Further information is available on the website at

[http://www.anu.edu.au/sas/dean\\_of\\_students/Student\\_Grievance\\_Resolution.php](http://www.anu.edu.au/sas/dean_of_students/Student_Grievance_Resolution.php) or contact the ANU Students' Association on 02 6125 5849

## **Study**

The Academic Skills and Learning Centre is available to help and advise students experiencing problems with their ability to learn and study effectively. The centre is located on the lower ground floor of the Pauline Griffin Building No 11. The office is open during term and vacations on an appointment basis, the phone number is 6125-2972 and the fax number is 6125-3399. A map is available at <http://www.anu.edu.au/academicsskills/images/map.gif>

### **International Student Services**

Information for International Students can be found at:  
[http://info.anu.edu.au/studyat/International\\_Office](http://info.anu.edu.au/studyat/International_Office)

### **Welfare**

A welfare officer is available for consultation on extension 55849. Consult the ANU web page for other services (eg, disability) available to students.

### **First Aid**

The first aid officer in Department of Computer Science is:  
Deanne Drummond – Phone 55141, Room N337, 3 Floor.

### **Transport and Parking**

Information about transport and parking can be found at: <http://transport.anu.edu.au>

### **University Classifieds**

Often text books and other items like furniture can be purchased from the classified section on the University Website. Just go to <http://billboard.anu.edu.au/classifieds.asp>

# Appendix A: Appeals

The University recognises the right of students to seek a review of, and to appeal against, their final result in a course. The ANU Policy is called Assessment Review and Appeals. Here is a useful extract:

## Step 1

Discuss the disputed result with the Lecturer.

### ACTION TO BE TAKEN

Lecturers/Course Authorities will often re-examine a student's work, and will inform the student of their decision.

Many decisions need to go no further than this first step.

## STEP 2

If you believe that after Step 1 the result in the course is still inappropriate, discuss the problem with the Delegated Authority / Head of Department.

### ACTION TO BE TAKEN

The Delegated Authority will discuss the request with the Course Authority.

Apart from determining the rationale for awarding the particular grade, the Delegated Authority will also determine whether established assessment procedures were carried out. At this stage the Delegated Authority may involve a third examiner in the process of reviewing the grade. The Delegated Authority will inform the student of the result of the review process.

Dean of Students

Students may also seek the advice of the Dean of Students.

## STEP 3

If after Step 2 you still believe the result in the unit is inappropriate, submit to the ANU College Dean (in CECS: the Deputy Dean (Education), in writing, a formal appeal of the result within 30 working days of the formal notification of results. Reasons why the result is considered inappropriate must be clearly stated and other relevant material included.

# Appendix B: Use of University Computing Services

The following is an extract of the university's rules relating to use of its Information Infrastructure and Services Rules. The complete rules, and other rules and policies, can be found by searching for its title in the ANU web pages: <http://its.anu.edu.au/>

## B.1 Information Infrastructure & Service Rules 2006

<http://www.anu.edu.au/cabs/rules/InfoInfra&ServRules.pdf>

### PART 1 – PRELIMINARY

#### 1 Citation and commencement

- 1.1 These Rules are the Information Infrastructure and Services Rules 2006.
- 1.2 These Rules commence on the day after they are registered.

#### 2 Interpretation

2.1 In these Rules, unless the contrary intention appears:

**account** means an account assigned to a user under subrule 6.4;

**ANU College** means a College established by the Council, including:

- the ANU College of Arts and Social Sciences;
- the ANU College of Asia and the Pacific;
- the ANU College of Business and Economics;
- the ANU College of Engineering and Computer Science;
- the ANU College of Law;
- the ANU College of Medicine and Health Sciences;
- the ANU College of Science;

**Appeals Committee** means the Information Infrastructure and Services Appeals Committee established by rule 34;

**external user** means a person, other than a member of staff or a student of the University, who is authorised to use the part of the information infrastructure in relation to which the term is used;

**item** includes a book, periodical, newspaper, thesis, pamphlet, musical score, map, plan, chart or table, sound recording, cinematograph film, audio-visual material, electronic material, digital material and microform material;

**Librarian** means the person holding office as University Librarian, or any other Director who holds office as a Director in the Information Portfolio within the University, as the case requires;

**library collection** includes a collection of items;

**loans desk**, in relation to the Library, means any desk, table or counter in the Library including any associated book chute used for the purpose of borrowing or returning items;

**password** means a mode of secured personal access, described in rule 7, to a part of the information infrastructure authorised under rule 6 for use by the user;

**responsible officer** means the Vice-Chancellor or his or her nominee;

**software** includes the licensed products, computer programs and applications located on the information infrastructure;

**Statute** means the Information Infrastructure and Services Statute 2006;

**user** means a person (wherever located) who accesses the information infrastructure.

[Note: **information**, **information infrastructure**, **information services** and **Library** are defined in the Statute. Terms defined in the Statute have the same respective meanings in the Rules as they have in the Statute.]

## **PART 2 - INFORMATION INFRASTRUCTURE: ACCESS AND USE**

### **3 Application of Part**

3.1 This Part applies to:

- (a) the University's information and information infrastructure; and
- (b) each user.

### **4 Access and use, generally**

4.1 A user must not use the information infrastructure in a manner that:

- (a) is unethical; or
- (b) is not in accordance with the law (including a law of the University); or
- (c) is detrimental to the rights and property of others.

### **5 Access to information infrastructure: responsible officer's role**

5.1 The responsible officer may give a user access to all or a particular part of the information infrastructure, depending on the user's individual work or study requirements.

5.2 If a user is permitted to access the information infrastructure jointly with another user, each such user is responsible for any action undertaken on the information infrastructure by any of the joint users during the period of joint use.

5.3 If a user has doubt concerning his or her authorisation to use any part of the information infrastructure, the user must seek the advice of the person responsible for that part.

### **6 Authorised and public access**

6.1 A person must not use the information infrastructure unless:

- (a) he or she is authorised to do so by the responsible officer; or
- (b) the service used by the person is for public use.

6.2 An authorised user must have regard to any relevant policies and guidelines for the use of University information infrastructure issued by the University from time to time.

6.3 A person commits an offence if the person:

- (a) uses, or permits another person to use, the information infrastructure, or any part of the information infrastructure, without being authorised to do so; or
- (b) uses another user's account; or
- (c) uses, for unauthorised purposes, any part of the information infrastructure which he or she is authorised to use; or
- (d) without lawful excuse, disturbs other persons using the information infrastructure or causes a nuisance in premises that are part of the information infrastructure.

6.4 The responsible officer, or an officer appointed by the responsible officer for the purpose, may assign an account to a user to enable the user to access part of the information infrastructure.

6.5 A user must provide proof of identity if requested to do so by a member of staff of the University.

6.6 Unless, in particular circumstances, the responsible officer determines otherwise, a member of staff or a student of the University has priority over authorised persons and members of the public in relation to the use of University facilities.

6.7 If a person, on University premises, contravenes subrule 4.1, 6.1, 6.2, 6.3, 6.5 or 6.6, any member of the staff of the University may direct the person to leave the premises for a period not exceeding 24 hours.

6.8 A person to whom a direction is given under subrule 6.7 must comply with the direction without delay.

6.9 To avoid doubt, a direction under subrule 6.7 is not to be taken into account when imposing a penalty under rule 32 or the Discipline Rules or when imposing a period of suspension under rule 33.

## **7 Authentication**

7.1 Access to some parts of the information infrastructure may be regulated by password or other form of authentication supplied to a user by the responsible officer.

7.2 If a password or other form of authentication is personal to its particular user, it is an offence for the user to make it available to another person.

## **8 System security**

8.1 If a user inadvertently obtains information to which he or she is not entitled, or becomes aware of a breach of security, pertaining to any part of the information infrastructure, the user must immediately report it to the person responsible for that part or to the responsible officer.

8.2 A user must not:

(a) make any attempt to find out the password or other form of authentication for a part of the information infrastructure which he or she has not been authorised to use; or

(b) inject or otherwise introduce computer viruses (including bots, spyware, Trojan horses) into the University's network or any equipment of the University whether connected to the network or not; or

(c) attempt to copy, disclose, transfer, examine, rename, change, add to or delete information belonging to the University or another user without their express permission, unless it is part of the first-mentioned user's duties to do so; or

(d) collect or discard any analogue, digital, electronic, printed or magnetic output without the owner's explicit permission, or unless required to do so as part of his or her duties.

8.3 A user must not engage in any other activity that adversely affects the security of the information infrastructure.

## **9 Publication of material**

9.1 If a user creates, or is responsible for, material sent over or published on the information infrastructure, the user must present this material in a professional manner upholding the reputation of the University.

9.2 Material sent over or published on the information infrastructure by a user must contain the originator's name and position within the University.

## **10 Use of equipment and software**

10.1 On any machine governed by allocation of resources to individuals or groups (such as supercomputer time allocation), a user must not exceed his or her agreed allocation.

10.2 If a user becomes aware of an abuse of a shared resource, the user must report it immediately to the person responsible for the relevant part of the information infrastructure.

10.3 If a user is provided by the University with, or with access to, software to be used on the information infrastructure, the user must abide by the Copyright Act 1968 and relevant terms of any licence agreement in relation to the software provided to the user with the software.

## **11 Development of software**

11.1 If a user develops software with potential commercial value on, or using, the information infrastructure, the user must have regard, in relation to the software, to the University's legislation and guidelines about intellectual property.

## **12 Access to remote services from the University**

12.1 If a user abuses any information or information service at another site accessed from the University's information infrastructure, the abuse is to be regarded as abuse of the information infrastructure at the University.

[Note: information services at another site may also be covered by relevant legislation or applicable guidelines administered by the other site.]

### **13 Examination of information**

13.1 If there are reasonable grounds for believing that the information infrastructure is being or has been used in contravention of an Industrial Award, an Enterprise or Workplace Agreement, a Statute, Rules or Order of the University or any other legislative instrument, the Vice-Chancellor may appoint, in writing, a person to examine information stored on the information infrastructure.

13.2 A member of the University staff who is authorised to examine information under subrule 13.1 is bound by the provisions of the Privacy Act 1988 in relation to information obtained through such an examination except in regard to its disclosure for purposes of substantiating a contravention to which that subrule applies.

### **14 Further conditions**

14.1 Nothing in these Rules prevents the Vice-Chancellor from applying further conditions to the use of a particular information service, because of the special nature of the service.

## **PART 3 - PARTICULAR OFFENCES**

### **15 Penalties**

15.1 A person who contravenes a provision of Part 2 or subrule 27.5 commits an offence.

15.2 A person who commits an offence to which subrule 15.1 applies is liable to a penalty set out in rule 30.

### **16 Offence: use for gain**

16.1 A user may not use any part of the information infrastructure for personal or private gain, or for a financial gain to a third party, without first obtaining the approval of the responsible officer for that part of the information infrastructure.

16.2 A user who knowingly or recklessly contravenes subrule 16.1 commits an offence.

### **17 Offence: copying**

17.1 A user commits an offence if the user:

- (a) copies any information of another user contained on the information infrastructure (without the consent of the other user); or
- (b) copies any software contained on the information infrastructure (without the consent of the licensor of the software); or
- (c) copies any information belonging to the University which the user is not authorised to access or to copy (including copying that would cause the University to be in breach of a licence agreement); or
- (d) otherwise contravenes a provision of the Copyright Act 1968 in relation to information contained on the information infrastructure.

### **18 Offence: interfering or subverting**

18.1 A user must not interfere with the operation of the information infrastructure or any part of the information infrastructure.

18.2 If a user wilfully interferes with the operation of all or any part of the information infrastructure, he or she commits an offence.

18.3 If a person attempts to subvert the security of any of the information infrastructure, he or she commits an offence.

18.4 A person commits an offence if the person, without authority or lawful excuse:

- (a) destroys, erases or alters information stored in, or inserts information into, the information infrastructure or any part of the information infrastructure; or
- (b) interferes with, or interrupts or obstructs the lawful use of a part of the information infrastructure; or
- (c) destroys, erases, alters or adds to information stored on behalf of the University; or
- (d) impedes or prevents access to, or impairs the usefulness or effectiveness of, data stored in the information infrastructure or information stored on behalf of the University.

**19 Offence: obscene, offensive, etc. messages or material**

19.1 A person must not use the information infrastructure:

- (a) in a manner that brings the University into disrepute; or
- (b) to publish or send spam or obscene, offensive, harassing or defamatory messages or material to another person whether at the University or at another place.

19.2 A user commits an offence if the user sends a message or material referred to in subrule 19.1, whether within the University or to a person outside the University, on a network connected to the information infrastructure, whether it identifies the user as affiliated with the University or not.

19.3 If a user sends, through equipment which is not part of the University's information infrastructure, a message or material to which subrule 19.1 applies and which associates the name of the University with the message or material, the user commits an offence.

**20 Offence: misrepresentation**

20.1 A person commits an offence if the person represents himself or herself as another person, whether fictional or not:

- (a) to obtain access to the information infrastructure or any part of it; or
- (b) to purport to be the author of any work or information on the information infrastructure; or
- (c) to send any message or information on the information infrastructure.

**21 Offence: damage to items**

21.1 A person commits an offence if the person wilfully or recklessly:

- (a) damages any item, article or part of the information infrastructure; or
- (b) erases, deletes or damages any information through the information infrastructure.

[Example: to invoke paragraph 21.1(a), the damage could be caused to any part of the information infrastructure, including hardware, software, digital or print media.]

# Appendix C: Use of Computing Laboratories

The following is an extract of the university's rules relating to use of computing laboratories. The complete rules, and other rules and policies, can be found by searching for the title in the ANU Web pages: <http://www.anu.edu.au/cabs/orders/index.html>

## C.1 Information Technology Services (Student Computer Laboratories) Order 2005

<http://www.anu.edu.au/cabs/orders/itservssclorder.pdf>

The conditions of access to and use of, the laboratories are as follows:

- (a) a student or a member of staff must not provide access to a laboratory to any third party who is not a student enrolled in the University or a member of the staff of the University;
- (b) a user must provide proof of identity if requested to do so by a member of staff of the University;
- (c) the laboratories are to be used solely for activities relating to undertaking study at the University;
- (d) a user or other person who is not involved in a class must vacate a laboratory at the request of a lecturer who has the room in which the laboratory is located booked for the class;
- (e) a user must not attempt to gain or use an unreasonable share of a laboratory's resources (including, but not limited to, disk capacity, printer paper, server or processor time or time using desktop machines);
- (f) a user must not damage, remove, make inoperative, or make to appear inoperative equipment in a laboratory;
- (g) a user must not run games software on equipment in a laboratory, or use that equipment for Web browsing for entertainment, or for playing `MUDs' (Multi-User Dungeons and Dragons), or network chat;
- (h) a user must not smoke, eat or drink in the laboratories;
- (i) a user must not bring, or permit entry, into a laboratory any animal (except a guide dog);
- (j) a user must not behave in a way which interferes with other users' reasonable access to, or use of, the equipment (such as by creating a disturbance, making excessive noise or entering during classes);
- (k) a user must comply with the Discipline Rules regarding harassment and intimidating behaviour;
- (l) a user must not use the laboratories for or in relation to behaviour that constitutes sexual harassment including the gratuitous use or display of pictures or objects with sexual connotations in a work or study environment within the University in circumstances in which another person reasonably feels offended, humiliated or intimidated;
- (m) a user must not use the laboratories for private gain.

## C.2 User may be required to leave

If a person contravenes the above conditions, any member of the University staff may request the person to leave the laboratories.

## C.3 Penalties

Any person who contravenes these Guidelines or fails to comply with a request to leave, commits an offence.

**Penalty:**

**For a first offence:** \$100 or suspension of the person's access to the Information Technology Services

**For a second offence:** \$250 or suspension of the person's access to the Information Technology Services

**For a third or later offence:** \$500 or suspension of the person's access to the Information Technology Services.

If a user does not comply with the University's Statutes, Rules, Orders or conditions relating to particular services, in addition to, or substitution for, any other penalty, the user's access to services may be revoked.

[NOTE: The provisions of Part 4 of the Information Technology Services Rules dealing with appeals against decisions applying penalties apply in relation to this Guideline.]