

School of Computer Science and Software Engineering
Monash University

CSE417 (CS/DS/Sci) Communication and Research Skills, 2004

Aims

The aim of this subject is to support the development of your research, writing and presentation skills. You will learn to research, deliver and evaluate professional technical presentations; write a literature review; structure and write a thesis.

Assessment and Deadlines for Computer Science, Digital Systems and Science Students

Note: The assessment for software engineering students differs slightly from these assessments. Please refer to your coordinator for details.

<u>Task</u>	<u>%</u>	<u>Assessed by</u>
Interim Presentations	Hurdle	
Research Log Book	Hurdle	
Research Proposal	10	Supervisor/2 nd Examiner
Research Methods Assignment	30	Lecturer
Literature Review Draft	Hurdle	Supervisor
Literature Review	20	Supervisor/2 nd Examiner
Final Presentation	20	CSSE Academic Staff
Project Web Site	10	CSSE Academic Staff
<u>Seminar attendance</u>	<u>10</u>	<u>Honours coordinators</u>
Total	100	

For deadlines in 2004 see below or the separate CSE 417 schedule.
Please note that Attendance at CSE 417 is mandatory and will be taken.
Unsatisfactory attendance is penalized by a 10% reduction of your final mark.

Seminar Attendance

Due Date: Throughout Year
Assessment weighting: 10% of CSE417 Communication and Research Skills

Honours students must attend a minimum of FIVE (5) seminars each semester, i.e. a total of TEN (10) seminars in the complete honours year. You must fill out a Seminar Evaluation sheet for each seminar you attend and submit it immediately after the seminar to the General Office. Seminar Evaluation sheets will be distributed during Honours Orientation. Note: It is expected that as you progress through the year your evaluations of the speaker's delivery skills and the seminar content will become more detailed and will reflect elements of evaluation you have learned in class.

Research Log Book

Due Date : 2/11/04, 12 noon

Assessment weighting: Hurdle for Communication and Research Skills

You must keep a research diary/log book where you write down your research ideas, progress on the project and a log of your meetings with your supervisor. The minutes of meetings should include: Current state of project, progress since last meeting, problems identified, the next agreed milestone with deadline, target for next meeting, date and time of next meeting.

Research Proposal

Due Date : 28/4/04, 12 noon

Assessment weighting: 10% of Communication and Research Skills

Assessed by : Supervisor and Second Examiner

3 copies must be submitted. Caulfield to Peter Granville. Clayton to the CSSE Enquiries Office.

Early in the year the student is required to submit a written project proposal around 5-10 pages to outline the project. This document should be prepared in close consultation with the supervisor. The **main** purpose of the research proposal is to ensure that the student has a clear understanding of the project and that a plan for completing it has been worked out together with the supervisor. In particular, the research proposal gives 2nd examiners a chance to find out early about the nature and scope of the project and raise any concerns they have with the student and the supervisor.

A second purpose of the research proposal is to clarify what the deliverables of the project are. Therefore the proposal must contain a section “Deliverables”, giving a short description for each deliverable, such as “a prototype program that allows to predict the outcome of a football match based on the results of previous years”, “a Java class library implementing a framework for genetic programming”, “an evaluation of the performance of CAMML for real-world bushfire prediction”, “a proof of NP=P” etc.

This section is very important as the description of deliverables will ultimately guide the marking of your project. Of course, the direction of a project can change during the year so that the deliverables may also change. If this should happen, you should address this issue in an appendix to your final report clarifying how and why the deliverables have changed. This will allow the 2nd reader and other examiners who have not been in close contact with you during the year to correctly assess your project.

In addition to its function for project clarification and planning, the proposal is also a means to assess student's written communication skills, hence its inclusion in the CSE417 assessment. The supervisor and the 2nd examiner should give the proposal a mark out of 10, taking into account the accuracy, clarity and conciseness of the written presentation.

Students are required to use LaTeX to produce this document, to ensure they consolidate the LaTeX knowledge they have acquired in their CSE417 class. A LaTeX style file will be provided. Note that this is the only piece of work where we specify the word-processing format even though we recommend to use LaTeX throughout as it is one of the most commonly used tools for scientific typesetting.

Research Proposal Assessment Requirements:

The proposal should include the following:

1. Title Page, refer Title Page Template
2. List of Contents
3. An Introduction

This section presents an overview of your propose area of study, states the problem being studied and the aims of your project. Note that the this should include why, and to whom, this project is of interest, in a form that can be understood by non-experts in the area of study.

4. Research Context

This section sets the project in the context of previous studies including the most recent work.

5. Research Plan and Methods
 - . Methodologies
 - . Proposed thesis chapter headings
 - . Timetable
 - . Potential difficulties
 - . Special facilities required
6. Deliverables
7. Bibliography

Research Proposal Title Page Layout:

School of Computer Science and Software Engineering
Monash University

<Degree> Honours (<course code>), <Campus> Campus

Research Proposal - Semester 1, 2004

<Thesis Title>

<Student Name and Id>

<Supervisor Name(s)>

Research Methods Assignment

Due Date : 26/5/04, 12 noon (may be subject to change)

Assessment weighting: 30% of Communication and Research Skills

Assessed by : Lecturer

This assignment will be handed out by the lecturer during the research skills segment of the unit. The due date may be set to a later point of time by the lecturer. If this is the case you will be informed of it during the lectures.

Literature Review

Draft Due Date : 11/6/04, 12noon

Due Date : 28/7/04, 12 noon

Assessment weighting: 20% of Communication and Research Skills

Assessed by : Supervisor and Second Examiner

The supervisor should be contacted when preparing this document.

Literature Review Assessment Requirements:

- . Title Page
- . List of Contents
- . Must be in standard scientific format
- . Must include:
 - an abstract of 100-200 words length
 - a number of sections and subsections of main text
 - a list of references/bibliography
- . Page limit, normally not exceeding 20 pages excluding bibliography (see below).

A literature review is normally a significant part of an Honours thesis to put your topic in context. The preparation of the Literature Review is to ensure that you have adequately surveyed the literature of your

chosen topic area and that you have a good understanding of the current concepts, controversies, etc., before you get too far into your Honours project. It is important to not only describe previous studies but to compare and evaluate their contribution to your topic area. This review also serves as training in the expository style of scientific writing, which emphasizes the qualities of accuracy, clarity and conciseness.

If there is little literature directly related to the project, the student should discuss this with the supervisor and negotiate a variation on the topic. If there are problems in terms of your writing style, choice of terms, spelling, punctuation or citation techniques these can be identified and corrected at this stage, prior to the preparation of the final draft of the thesis.

Each paper that you find relevant to your chosen topic area contains a set of references, some of which will also be relevant. These lead to other papers and so on. You will also have to make decisions as to which papers are most important to your review.

When you have gathered and assimilated most of your literature, think about what arguments you would like to develop and any weaknesses that you see in the research to date. Then write your review of the topic citing the appropriate references. The suggested page limit, 20 pages, is a guide to the extent of literature research expected for the review. However, in individual cases a longer review may be required or a shorter one may be sufficient. If you want to exceed this limit substantially (or if you think that your review should be much shorter) you should discuss this with your supervisor who will advise you on an appropriate format and length.

It is mandatory that you first submit a draft of this literature review to your supervisor (the submission requirements are the same as for the final version, see below). This draft should be vetted by the supervisor. The draft will also be reviewed by the LLSU lecturer. During the semester break you should take the chance to consult these people regarding possible improvements of the literature review. Proof reading and correction of the manuscript is essential prior to final submission, and unsatisfactory submissions may be returned for rewriting.

Be aware that almost certainly you will include major parts of the literature review in your final report.

Literature Review Assessment Criteria:

Three copies of the proposal must be submitted (Four copies if you have two academics co-supervising you). Caulfield students should submit to Peter Granville. Clayton students should submit to the CSSE Enquiries Office, Ground Floor Building 63.

Contents, in terms of scope and depth of discussion	40%
Organisation, in terms of the structure and scientific format	30%
<u>Accuracy, clarity and conciseness of written presentation</u>	<u>30%</u>
Total	100%

Following assessment, the comments on the manuscript should be taken up, in the first instance, with the supervisor, and then with the other staff members who have also read your review. Relevant portions of the review may be incorporated into the final thesis.

Literature Review Title Page Layout:

School of Computer Science and Software Engineering
Monash University

<Degree > Honours (<course code>)
<Campus> Campus

Literature Review - 2004

<Thesis Title>

<Student Name and Id>

<Supervisor Name(s)>

Interim Presentation

Due Date : 3/6/04
Assessment weighting: Hurdle

Each student is required to present a 15 minutes presentation to staff and postgraduate students.

The main purpose of this presentation is to tell the School what the aim of the project is and how you plan to achieve the aim. The presentation should outline the background and objectives of the research project, give a detailed plan and describe the work you have done so far. It is expected that by the time of the presentation you will have a clear idea of the project and made reasonable progress. It also provides an opportunity for you to receive advice and suggestions from staff and postgraduate students. It is hoped that potential difficulties may be thus identified and avoided.

A clear and simple presentation is essential to promote feedback. It is important that you restrict yourself to the allocated time. A researcher who cannot synthesize his/her results and present them within a prescribed period of time does not show full confidence in the subject. It is up to you to decide what information is worthy of inclusion in your oral presentation, and what information should be left out. Remember that visual aids, overhead transparencies etc, are always helpful.

If you suffer the nearly universal 'stage-fright' of public speaking, remember that preparation and practice will help. A practice session is included in the *Communication and Research Skills* subject and you should also schedule a practice run with your supervisor.

Final Presentation

Due Date : Week of October 25 to October 29, exact dates TBA
Assessment weighting: 20% of Communication and Research Skills
Assessed by : CSSE Academic Staff Members

Between the submissions of the first and final drafts of the thesis, each student will present a presentation to introduce and defend the thesis. Each presentation will generally be followed by questions first from the supervisor(s) who will attempt to identify your achievements and then from the staff members and postgraduate students. The presentation typically is 20 minutes long (plus 5 minutes for questions and comments). Students will be advised of the exact time allocated later in the year. It provides an opportunity to think about what you have accomplished, and to get some comments and suggestions which can be taken up in the final draft of the thesis.

A brief introduction providing the context of the research will be necessary, placing the topic in a somewhat broader frame and identifying the questions, which are being addressed. If appropriate, a short description of previous techniques employed in the research area and major results to date should follow. However, most of the time should be devoted to presentation of your own research and results, and discussion of their interpretation, significance, and limitations in the light of the questions originally posed. Finally, you should draw some conclusions from your existing work and provide an indication of further research.

Project Web Site

Due Date : 11/11/04

Assessment weighting: 10% of Communication and Research Skills

Assessed by : CSSE Academic Staff Members

Throughout the year you will maintain a website which will help you to keep other members of the school informed about your project and progress and can serve to advertise it to a wider international audience. This website will also be used to archive projects after they have been completed. The final version of the web site will have to be available on the due date and will be judged by members of the academic staff for content and presentation.

This site must NOT simply be the thesis converted to HTML, although the thesis should be available on the site (usually in pdf or postscript format). The site should contain an introduction to the project, descriptions of the project's aims, methods, results and conclusions, as well as links to other relevant work on the web, and appropriate text references. It should not be as detailed as the thesis, rather it should provide a starting point to encourage interested people to read the thesis itself.

The site is also intended to serve as a permanent record of the project, as both publicity for the quality of each students' work, and as a record for anyone attempting to build on the project work in subsequent years.

Students are encouraged to begin construction of the website early in the year, in order to use the site as an indicator of progress, and a repository for deliverables throughout the year (such as the research proposal and interim presentation). This also leaves time for feedback on the usability and effectiveness of the site before the site is marked at the end of the year.