



THE UNIVERSITY OF NEW SOUTH WALES

SCHOOL OF SAFETY SCIENCE



***Project Students
Handbook 2006***

***Guidelines and Requirements for
Students and Supervisors***

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PREFACE

This Handbook is designed to assist students who are proposing to undertake a Project as part of their coursework degree in this School. Each project, by its very nature, is somewhat unique. So to be generally useful, this Handbook deals primarily with matters that are of interest to most students. It contains a mixture of University requirements, School rules and general advice. Some of this material has been taken from the items listed in Part 5.

The subject matter is divided into five parts.

Part 1 deals with University requirements.

Parts 2-4 deal with the Project.

Part 2 deals with the project investigation,

Part 3 describes the requirements of the written Report, and

Part 4 deals with subsequent administrative matters.

Part 5 deals with the shorter report-type courses offered by the School.

Part 6 contains further detailed information and forms for submission and examination of the Project Report

Students are advised to read this entire Handbook before embarking on a Project. If further information is required, students should contact either their supervisor or their Program Authority.

PART 1: UNIVERSITY REQUIREMENTS

Programs and projects

The School of Safety Science offers the following Masters degree Programs that require the completion of a Project Report.

Master of Science and Technology:

- o in Environmental Science – ENVSDS8735
- o in Ergonomics – SESCAS8729
- o in Industrial Safety – SESCBS8727
- o in Risk Management – SESCES8728
- o in Occupational Health and Safety – SESCOCS8733
- o in Occupational Medicine – SESCFS8734
- o in Fire and Explosion Safety Management – SESCJS8736

and the:

- o Master of Safety Science – SESCDS8671

Re-enrolling students enrolled in superseded degrees have the option of staying with their existing program, or transferring to new equivalent programs (without academic penalty, although fee arrangements may differ).

Units of Credit

University policy on assessing the amount of credit to be awarded for work carried out has been evolving over a number of years. From 2000, the value used to measure progress in student studies was changed from the credit point (CP) to the unit of credit, or UOC. The number of UOC for “one year full time equivalent” has been set at 48 (or 24 a session). As the one year full time equivalent prior to this change was 120 CP, 1 UOC is equivalent to 2.5 CP for all School of Safety Science courses.

Project Courses

Policy has also been set on the number of UOC for a project in a postgraduate Masters program. Project sizes prior to 1998, were 24, 36, 48 and 72 CP. These have been revised, and are now 12, 18 and 24 UOC.

The 12 UOC project is the standard one for masters degree programs. However, a larger project may be warranted in special circumstances, and the student should seek advice about larger projects from their Program Authority or Head of School.

The School offers a range of report and project based courses. These are:

- o SESC9010 Research Methods (3 UOC), a course covering issues in research methodology. This course is compulsory for students in some

- programs offered by the School, but can be an elective in all other masters programs;
- o SESC9900 Project Methods (3 UOC), a course covering the development of a research project. This course is compulsory for students in most programs offered by the School, but can be an elective in all other masters programs;
 - o SESC9903 Report (3 UOC), a course available for all postgraduate programs;
 - o SESC9906 Special Report (6 UOC), a course available for all postgraduate programs;
 - o SESC9912 Project (12 UOC), a course available for 1, 1½ and 2 year (full time equivalent) masters programs;
 - o SESC9918 Project (18 UOC), a course available for 1½ and 2 year (full time equivalent) masters programs in special circumstances;
 - o SESC9924 Project (24 UOC), a course available for 2 year (full time equivalent) masters programs only in very special circumstances.

It should be noted that the project is optional in some programs (such as SESCFS8734 Occupational Medicine, SESCES8728 Risk Management and ENVSDS8735 Environmental Science). There may be a requirement to take a 6 UOC Special Report (SESC9906) in these programs. The guidance in this document also applies to such Special Reports.

Parts 2-4 and 6, and Appendices 1-7 of this Handbook relate to the Project.

Parts 5, 6, and Appendix 8 of this Handbook relate to Reports and Special Reports.

Length of Project Reports

The following word and page lengths are based on accepted practice within the School and assume the standard margins and a 1.5 line spacing as detailed in Part 3.

<i>UOC</i>	<i>Words (000s)</i>	<i>Pages[†]</i>	<i>CP</i>
12	15 - 20	50 - 70	30
-	20 - 25	70 - 80	36
18	25 - 30	80 - 100	45
24	30 - 35	100 - 120	60

† ***Number of pages excludes any Appendices***

PART 2: THE PROJECT

Background

Conceptually, the incorporation of the project into the masters programs is to teach the student, by deed and action, the process of carrying out projects. The basic process is:

- develop a research question;
- review existing knowledge so that the research question can be put into proper context (part of this is to carry out a literature search). This may lead to the research question being modified;
- develop a methodology(ies) by which the research question can be examined. The Methods Chapters should be presented in such a way that other people are able to repeat the project
- collect data or information using the research method(s);
- analyse the data or information so that appropriate findings can be made from them;
- discuss the findings from at least the perspective of: (i) the problems of the methods used; (ii) the significance of the findings as part of answering the research question; and (iii) the significance of the findings in the context of existing knowledge. Important in the process is objectivity and critical synthesis;
- develop appropriate conclusions about the significance of the findings, including (possibly) recommendations and/or future research.

The scope of work in each of these areas depends on the nature of the project, the relative importance of each Chapter, and the activities the student gives to each Chapter. For example, in the past, investigative projects tend to be larger in size, and have much larger data acquisition and analysis Chapters, whereas a project that critically examines a specific issue may have a large discussion and conclusions Chapter.

The successful conduct of a research project requires the student to display a variety of skills. The technical skills needed will depend on the subject matter of the project; these will be discussed later. The non-technical skills are more obscure, and include enthusiasm, commitment and perseverance. Projects are seldom wholly straightforward, and the way in which a student deals with the problems that invariably arise is an indication to an examiner of the research ability of the student.

Solving those problems and completing a detailed scientific report on a project nearly always take longer than first anticipated. These tasks require considerable dedication. So students should realise that a project can intrude on one's personal life to a greater extent than Coursework courses. However, besides the

achievement of a worthy academic result, there is great personal satisfaction in having successfully completed a Project.

The high quality of projects conducted in the School merits recognition by a wider community. Wherever possible, students should endeavour to publish their work in the scientific literature.

Accordingly, it is strongly recommended that on submission with their Report, students prepare a 2000-4000 word summary of the project that is in a form suitable for submission for publication as a paper in a professional journal.

Objectives

Students are required to undertake a Project as part of their training to develop and extend their competencies. Having completed a Project, students should be able to:

- Collect, interpret and critically evaluate the literature on a chosen topic;
- Identify problems or gaps in knowledge;
- Develop research questions;
- Prepare a research or development plan and appropriate protocols and pursue them to completion;
- Present and analyse data so as to draw valid conclusions and make consequent recommendations;
- Prepare an objective and well written Report on the findings of the Project;
- Suggest topics suitable for further research;
- Write clearly and succinctly.

These competencies are the basis on which the student's Project Report is assessed. They should be demonstrated in the Report, for which purpose Guidelines are presented in Part 3.

Choice of Topic

The topic of the project should relate to some part of the Program in which the student is enrolled. If the topic is also related to your own employment, then it may be directly beneficial to you and your employer, with the advantage that it may be done partly in work time. For students who have not pre-selected a project topic, a list of some suggested project topics is available in the School for perusal.

The topic should be selected with care, as much effort will be devoted to it. Experience indicates that students are generally happier if they choose a topic in which they have some interest and existing knowledge and skills.

Supervision

Every project must be conducted under the guidance of a Supervisor approved by the Head of School or Program Authority. If a substantial part of the work is to be pursued in another institution, it may be necessary to appoint a local External Supervisor. In some cases there could be both an internal academic supervisor and an external specialist co-supervisor.

The type and amount of supervision that is appropriate for any project depends inherently on the particular student, the particular supervisor, and the demands of the project. Usually a satisfactory relationship is evolved by the participating persons. The expectations of each are discussed by Phillips and Pugh (1992) to whom the reader is referred for information on this and other topics.

You should consult frequently with your supervisor, particularly when in need of advice or help. Sometimes, what might appear to be insurmountable problems can be fixed by something you didn't consider, so don't let problems impede progress. You **must** obtain the concurrence of your supervisor before embarking on any project activity outside the University, such as issuing a questionnaire, or making measurements, to ensure that the reputation of the University will not be compromised.

You are advised to discuss any results with your supervisor at an early stage, to check that the methodology is suitable; that the data are of sufficient quality; and that your analytical techniques are appropriate.

When nearing completion of the project, you must liaise with your supervisor to ascertain that the work is of sufficient standard before submitting the Project Report for examination. It is vital at all stages to liaise with your supervisor.

Choice of Supervisor

You are advised to choose an academic supervisor who has interests appropriate to your topic. Appendix 1 lists the current research interests of the staff of the School of Safety Science. Several external lecturers have also indicated their willingness to supervise projects. Students should contact individual staff members for elaboration or explanation of any of their research interests. Do not hesitate to talk to several staff members individually before making a final decision about a project topic and a supervisor.

The choice of a supervisor and the choice of a project topic should complement each other.

Role of the Supervisor

In general, the role of the Supervisor is to:

1. Assist in the formulation of the project.
2. Ensure that the student works conscientiously on the project.
3. Provide guidance to the student on use of facilities.

4. Be available for consultation with the student, and offer advice as appropriate.
5. Assist in setting goals and deadlines that the student should meet.
6. Attend major presentations made by the student.
7. Provide comment on the student's progress.
8. Assist in the resolution of any difficulties that might arise with the project.
9. Comment on the draft of the Project Report.
10. If appropriate, contribute to any ancillary work (e.g. publications) that arise from the project.
11. Examine the project in conjunction with a second marker in the case of 24 and 36 UOC projects.

An external co-supervisor should liaise with and assist the internal Supervisor with the above items, as appropriate, particularly in regard to the use of local facilities at the external location.

Importantly, it is not the role of the supervisor to contact a student if deadlines are not met or if project work is not completed. Rather, it is the responsibility of the student to keep the supervisor informed of progress or difficulties.

Types of Project

All the Projects that have been completed in the School can be classified as one of the following types. Your project should fit one of these types.

1. Empirical research. This would include research design; data collection, analysis and interpretation, and discussion of findings. Such a project could be a pilot study for a larger project.
2. The analysis of data collected by others. This includes interpretation and discussion of results and recommendations for further research.
3. The preparation of a research protocol for a larger study. This would include evaluation of existing knowledge, discussion of methodological issues and could include development and evaluation of data collection systems and statistical analyses.
4. A development project. For example:
 - Design, construction and testing of an instrument or device.
 - Development and preliminary evaluation of an improved method for measuring some parameter more accurately than was previously possible.
 - Development and preliminary evaluation of computer software.

- Development and preliminary evaluation of a training package or manual.
5. A case study. For example, a risk analysis or an environmental impact analysis.
 6. Evaluation of an existing system. For example:
 - The way in which regulations address a problem;
 - The effectiveness of performance indicators for safety management;
 - The evaluation of a relevant data collection and analysis system.

All projects should include a literature review; a justification of the need for the investigation; a description of the problem to be addressed; a critical review of existing procedures; an analysis of the key factors; a justification and description of the methods chosen; presentation and discussion of the results; and the deduction of conclusions.

These items are considered in more detail in Part 3.

Workload and Timeline Considerations

It is difficult to generalise about the amount of time that may be required to complete a project. When planning a project in conjunction with a student, a Supervisor usually deduces a suitable target date that determines when the project will be completed. Experience has shown that students should be prepared to devote a total time of at least ten to fifteen times the credit point value (1 UOC = 30-40 hours of work) to the project. For example, a 12 UOC project would probably require a minimum of about 300-450 hours of work.

Enrolment Procedure

When a topic and supervisor have been mutually agreed, a student may enrol in the appropriate Project course SESC9912. The student should first choose a topic and supervisor and submit a project proposal (see below for details). The proposal may be submitted before or after enrolment, but at least before the HECS cut-off date so as not to incur a financial penalty.

In the 8720.8970 Master of Environmental Science program, it is permissible for a student to enrol in a project in another School, using relevant project identifiers such as GEOG9512, CIVL9909 or LAND9002.

In some circumstances a student may enrol in SESC9912 as a distance student. In such cases the School will endeavour to ensure that the student receives the same consideration as an internal student of the University.

Prerequisite Courses

It is a School requirement that students undertaking SESC9912 must have completed the course SESC9910 Research Methods and must have completed, or

be enrolled in, the course SESC9900 Project Methods. This requirement is mandatory in some programs, but strongly recommended in all others.

In certain cases, these requirements may be waived where a student is able to offer prior knowledge in the conduct of research projects (for example, by studying epidemiology or research methods at least at the postgraduate levels, or where they are able to demonstrate substantial experience in research project management). Consult your Program Authority if you wish to discuss this option.

Preliminary Work

In some cases it may be desirable for students to carry out a preliminary investigation to confirm that there will be sufficient academic content in the project and that there should be no insurmountable problems. This temporary delay in registration also may have the advantage of a student not having to pay fees or HECS for the course until being fully engaged in the project.

The Scientific Method

The scientific method provides the correct basis for undertaking a project. In general terms, the steps to be followed are as follows.

1. Identify a problem that needs to be solved or a question that needs to be answered.
2. Review the existing literature on the topic.
3. Formulate a question or hypothesis that is to be investigated. Define the relevant variables.
4. Design a procedure and/or equipment that will address the question or hypothesis.
5. Carry out the procedure.
6. Collect the results.
7. Where necessary, apply an appropriate statistical treatment to the results.
8. Interpret and discuss the significance of the results. This requires analytical and critical skills.
9. Publish the work so that others may benefit from the knowledge thus derived.

The sequence in which these steps are conducted is important. The literature review should be carried out first, as the information so gained may well affect the remainder of the project. Moreover the literature review should be updated during the course of the project.

Ethics

Every project student is expected to behave ethically at all times. The major ethical principles to be followed are as follows:

- o Respect the rights of any subjects involved in the research.
- o Abide by the design of the research.
- o Report all results as they are found.

If the research trials involve human subjects, approval of the UNSW ethics committee may be required. Ethical considerations may be methodological, risk to subject, or privacy. Examples include:

- o experiments involving the collection of blood or the trial of drug therapies;
- o the collection of personal information; and
- o analyses of hazardous manual handling tasks.

Project Proposal

To clarify the nature of the project, it is desirable at the formulation stage for the student to prepare a one page description of the proposed investigation for consideration by the Supervisor. The proposal should include:

- o a suggested title for the project;
- o the theoretical basis of the project;
- o the likely methods to be used;
- o the possible results that might be obtained;
- o the outcomes of the project;
- o any possible benefits.

This list can be refined as the project progresses. Subsequently the student should prepare a list of tentative chapter headings for the Project Report. Both of these items will focus the thrust of the investigation. It is also helpful at an early stage to develop an overall timetable for the project that will motivate the student to pursue the work enthusiastically.

As a general guide, the project proposal should be submitted by the HECS cut-off date in the session in which the student enrolls in the project.

The subject SESC9900 Project Methods should help in this process, as the assessment for the subject includes development of a literature search and a project proposal. It is intuitively logical to use this process to develop your thoughts about the topic of your project and its scope.

Project Seminars

Attendance

The School holds three project seminars each session, which all enrolled project students are expected to attend. The timetable is made available by the Seminar Convenor at the beginning of each session. Students are invited to raise any general matters about projects at these seminars. Intending project students are welcome to attend the seminars. Although external project students may be

excused by the Convenor from attending most of the seminars, if practicable a special effort should be made to attend a seminar when the project is almost completed. External students should make appropriate arrangements with the Seminar Convenor.

Presentations

During the Program of their project work, students are expected to present orally at least three progress reports at these seminars as follows:

- o An initial brief report indicating the topic, the supervisor, the aims and proposed methodology (about five minutes duration).
- o A report summarising the literature on the topic, the progress made in the investigation, and any major problems to be resolved (about ten minutes duration).
- o A review of the whole project including a statement of results and their significance (about fifteen minutes duration).

Some time is reserved after each presentation for discussion.

To assist students to present their material in an interesting manner, some helpful hints are presented in Appendix 2. The final presentation will be worth 5% of the Project Report and will be assessed by academics attending the seminars. Those that cannot give a final presentation at the School should contact their program authority to make alternative presentation arrangements.

Purpose

The purpose of these seminars is to provide a peer group of mutual support, and to extend the knowledge and competencies of students in a variety of ways (especially with regard to presentation skills). The aims are:

- o To enable students to receive academic and critical advice from staff and other students on various aspects of their project.
- o To expose students to a range of topics in health, safety, ergonomics and environmental matters.
- o To encourage students to work on their respective projects so that they will have some progress to report. The limited presentation time necessitates each student to extract the most significant or controversial aspect which has arisen since the previous presentation.
- o To enable students to gain experience in public speaking - which is very important for health, safety and environmental professionals and for those who wish to advance into management ranks.
- o To provide a convivial atmosphere for the interchange of technical information, and to enable students to develop a network of professional and social contacts.

Previous Project Reports

Students should take the opportunity to peruse several of the Project Reports that have been lodged in the School Library after successful completion by previous students. The earlier that students become aware of what is expected of them, by looking at previous Reports, the better.

It is generally helpful to look at any Project Reports on a similar topic to your own. In particular you should observe:

- The style of language which is appropriate for Project Reports.
- The precision of expression which is necessary.
- The breadth and depth of the academic content of the Report.
- The general format of presentation of the material, particularly in regard to headings, diagrams, tables and references.

In addition, the School Library is a valuable information resource on a variety of project topics.

PART 3: THE PROJECT REPORT

The writing of the Report on the Project can demand the most concentrated effort of the project process, and may require the author to operate in "intellectual overdrive". You will save time if you follow these guidelines and liaise with your Supervisor.

General Requirements

This Chapter deals with the specification of the style and the physical production of the Project Report. It would be extremely useful for students to start writing the draft of their Report according to the following recommendations.

Page formatting

1. *Paper size:* The size of the paper shall be A4 (297 mm x 210 mm) except for illustrative material such as drawings, maps and printouts, which if larger, should be as multiples of A4, such as A3 (297 mm x 420 mm) or A2 (420 mm x 594 mm).
2. *Single sided:* All materials in project reports shall be presented on only one side of the sheet.
3. *Orientation:* Pages containing text shall be presented in portrait orientation. It is permissible to use landscape orientation for other material, such as tables, figures and so on.
4. *Margins:* The margins on each sheet shall be not less than 35 mm on the left, and 25 mm for all other margins for pages in portrait orientation. Where pages are in landscape orientation, the margin at the top of the page should be 35 mm with all other margins at 25 mm.
5. *Page Headers and Footers:* These shall be between 10 and 15 mm from the top and bottom of the page. Many word processing packages offer a variety of options with regard to page headers and footers. The student should use caution in the inclusion of too much information in headers and footers, as these tend to "clutter up" the report. The font size of headers and footers shall be smaller than the font size for the main text.
6. *Page Numbers:* All pages shall be numbered consecutively. The location of the page number is a matter for personal preference, although it is recommended that page numbers be centered in the page footer.
7. *Spacing:* Project Report text shall be typed at 1½ line spacing. Spacing for Headings, Tables, Figures and so forth may be varied to suit personal taste, although large areas of white space are discouraged.
8. *Paragraph Justification:* For presentation purposes, it is preferable to have text in paragraphs justified. This is only possible for reports prepared using word processors.

9. *Font size:* The type size for text shall be not less than 12 point in a legible, preferably simple font such as Times Roman or Ariel. The use of different fonts for headings and so on (to provide a contrast) is a matter for personal preference.

Syntax

10. *Language:* Project reports shall be written in English. For those students using word-processing packages, the preferred language is Australian English.
11. *Expression:* It is in the expression of the text that the excellence of a report is usually found. In general, it is advisable to keep the expression of ideas in the text simple. In most cases, a sentence should contain only one basic idea. The report should have a logical flow, and develop ideas and concepts clearly.
12. *Spelling and grammar:* Spelling errors and poor grammar will detract from the overall quality of the report and raise doubt in the examiner's mind about the capability of a student. Therefore, the student should take particular care with the correct spelling in the Report. Many word processing packages have their spell check systems, and these are very useful. However, they will not correct an incorrectly used word if the miss-spelt word is an existing word already (for example, safely instead of safety, or milk instead of mild). These will require correction as the report is written or revised.
13. *Punctuation:* Poor punctuation will also detract from the overall quality of the report and raise doubt in the examiner's mind. Common problems, such as the inclusion of spaces between words and punctuation (for example, punctuation : instead of punctuation:) or poor use of commas, brackets and semi colons, can be fixed simply and easily, and can improve the quality of a report.
14. *Abbreviations:* It is acceptable to use abbreviations throughout the text. Some abbreviations are well known, and do not need explanation (such as USA, NSW or TAFE). However, others should be expressed in full text followed by the abbreviation in brackets the first time they are mentioned in the text. For example Environmental Protection Agency (EPA). Subsequently, the abbreviation can then be used by itself. It is no longer necessary to use full stops between letters in an abbreviation (NIOSH not N.I.O.S.H.). A list of abbreviations may be included in the report if required.
15. *Units:* Unless there is a precedent for use of non-standard units (for example ppm instead of mg/m³ in air concentrations), all units shall be expressed using the SI system. In presenting numbers and units (for example 5 m or 50 kg), there should always be a space between the number and unit (21 mg not 21mg).

General Inclusions in the Report

16. *Headings:* The use of headings and subheadings to organise the text is strongly encouraged. Numbering of headings is optional.
17. *Table of Contents:* Headings shall be used to develop a table of contents once the report is finalised. Some word processing packages will create a Table of Contents if configured correctly.
18. *References:* The use of cited references in Reports is strongly recommended, and indicates that the student has been reading widely.

It is an important part of Report preparation that any assertions made or sources cited are substantiated through the inclusion of references. Guidance on citing references is outlined below, and in Appendix 3. Preparation of reference lists is a time consuming task, and students are strongly encouraged to compile and continually update a reference list with all relevant details, as they write their reports.

One emerging concept is the use of the Internet as a source of information. This is acceptable, although there may be problems with regard to the standard of information on the web, and its permanence. If the student is unsure about whether the web material they are citing will retain its factual content, and not be altered at some future date, it should not be used as a reference. However, if Internet derived referencing is required, the full web address and the last date of the revision should be cited.

One last point: citing study materials provided as part of other courses (such as lecture notes) as references may suggest that the student is lazy and can't be bothered to find a primary source. Consequently, this is not recommended.

19. *Footnotes and Endnotes:* Many word processing packages are able to generate footnotes and endnotes. Footnotes should be used sparingly. Indeed, the text of many footnotes can be absorbed into the text. If the option of a numbered list of references is chosen (see below), the endnote function can be used. This has the added benefit that insertion of an endnote in the body of the text will renumber the references automatically saving considerable time with manual renumbering.
20. *Index:* The preparation of an index is not normally required in project reports. However, if a report is being prepared using a word processing package, and the relevant index macro is available, the preparation of an index may be possible. This is helpful to the reader and is a useful skill in preparation of other reports.
21. *Tables:* The use of Tables to present data or information is encouraged. Each table shall be titled and numbered, and be specifically mentioned in the text. Tables shall be placed as near to the relevant text as possible. All relevant components of tables should be correctly labeled. Tables shall be numbered throughout the text, either consecutively from the first Chapter, or where the Table includes the chapter number, consecutively from the

Chapter Heading. The inclusion of a List of Tables following the Table of Contents section is encouraged. This is helpful to the examiner and other readers and is a useful skill that may be helpful in the preparation of other reports.

22. *Figures:* The use of Figures to present data or information is encouraged. Each Figure shall be titled and numbered, and be specifically mentioned in the text. Figures shall be placed as near to the relevant text as possible. All relevant components of Figures should be correctly labeled. Figures shall be numbered throughout the text, either consecutively from the first Chapter, or where the Figure includes the chapter number, consecutively from the Chapter Heading. The inclusion of a List of Figures following the Table of Contents section is encouraged. This is helpful to the examiner and other readers and is a useful skill in preparation of other reports.
23. *Photographs:* For the purposes of presentation, these should be considered as figures, and included with the other figures for numbering purposes. Where photographic prints are a separate item, they shall be securely fixed to the page. Where they are printed on a page, they shall either be printed on single-weight printing paper, preferably not glazed, or mounted on cartridge paper for binding.
24. *Alternate Locations for Tables and Figures:* Where it is not possible to include tables and figures close to the text they refer to, they may be located elsewhere in the report. While this is discouraged, some tables or figures may be too large. If this occurs, such materials may be located in an Appendix, or as a separate document, numbered and folded for insertion in a pocket inside the back cover of the report. Where this occurs, the text must contain explicit instructions as to where the reader will find the relocated material.
25. *Equations:* Where equations are required to be included in the text, they should be placed on a separate line with no other textual material present on that line. Each equation should be identified by an Arabic numeral in brackets placed to its right, for example:

$$V = IR \quad (19)$$

An explanation shall be provided for all symbols and terms used in equations.

Where a series of equations is being presented, the equals sign (=) in each equation should be aligned, preferably somewhere towards the centre of the line, for example:

$$A^2/B = C \times D \quad (22)$$

$$A^2 = (C \times D)/B \quad (23)$$

$$A = (C \times D)/B \quad (24)$$

This may not be possible for long equations. In such cases, alignment of equals signs may need to be made away from the centre of the page:

$$\text{Respiratory protection factor/air concentration} = \text{Safety factor} \quad (7)$$

$$1000/100 \text{ mg/mg}^3 = 10 \quad (8)$$

26. *Appendices:* Each appendix shall be titled and numbered, and be specifically mentioned in the text. Appendices should be located at the end of the report, in numerical order. If there are a large number of Appendices, a List Of Appendices (with Titles) can be included in the Table of Contents.

Printing and Binding

27. *Printing:* The Project Report shall be printed. Good quality printing, such as from a laser printer or bubble jet printer is acceptable, provided that the printer ink does not smear. Dot matrix printing is not acceptable.
28. *Paper Quality:* The paper used shall be of good quality (normally acid free) and sufficiently opaque for normal reading.
29. *Large page materials:* Folded diagrams or charts included in the text shall be arranged so as to open out to the top and left of the Report.
30. *Attachments:* All loose material shall be marked with the candidate's name, initials, and degree for which the work is submitted in such a way that it can readily be linked with the Project Report. All loose material and any video tape, audio tape or computer disks shall be inserted in a pocket inside the back cover, or bound into a dummy volume of the same dimensions as the text volume and with the same lettering on the spine (see below).
31. *Large Drawings:* Where permission has been obtained from the supervisor for the separate binding of drawings, they shall be of paper size A1 (841 mm x 594 mm) and shall have a margin of at least 35 mm on the left-hand side to permit binding. Graphics printed by computer shall be of paper size A4 (297 mm x 210 mm) or if sheets of a greater length are required, must be a multiple of A4, e.g. A4 x 3 (297 high mm x 630 mm wide). They shall be bound together by a row of clips on the left-hand side and shall have a clear sheet of drawing paper on top and underneath. On the top sheet shall be printed the words '**The University of New South Wales - Master of XYZ**' and the year of submission. On the bottom right-hand corner shall be printed the name of the candidate.
32. *Binding of Reports:* There are two successive formats for the binding of Reports:
- 1 Before examination, Reports are required to be bound in a manner that will allow their transmission to examiners without the possibility of disarrangement of the pages (soft bound copies). This is to allow the easy insertion of modified material as recommended by the examiners;
 - 2 After finalisation, Project Reports should be permanently bound according to University requirements (see below).

33. *Numbers of Copies:* The number of copies to be submitted for examination is dependent on the size of the project for which this student is enrolled. However, two copies are required for projects prepared for the course SESC9912. Students should consult with their supervisor or Program Authority for special University requirements.

Specific Requirements

This section deals with the main contents of the Project Report, including University requirements, scope, main sections and so forth.

Content

In general the structure of the Project Report should follow the steps of the scientific method as described above. Any proposed variation to that sequence should be discussed with your Supervisor.

The style of language should be impersonal and objective. Each sentence should be checked to ensure that it conveys the meaning exactly as the author intended. Any significant statements should be substantiated by reference either to your own work or that of others. The Report should contain a clear and logical description of the project, with the minimum inclusion of any specialised jargon terms; these must be explained. The first time an abbreviation or acronym appears, it must be preceded by the full name for which it stands. Pay attention to spelling and grammar, as simple errors can spoil an otherwise excellent report. You may find it worthwhile to refer to previous Project Reports for guidance.

The following sections contain information relating to the components of the Report in the sequence in which they should be presented.

Title Page

The title page shall show the project title, student's name, student's number, number of units of credit, program and date submitted. It should follow the pattern of the example shown in Appendix 4.

Declaration of Originality

The following statement, signed by the candidate, must be included on a separate page:

Declaration of Originality

I hereby declare that this submission is my own work and to the best of my knowledge it contains no materials previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at UNSW or any other educational institution, except where due acknowledgement is made in the text. Any contribution made to the research by others, with whom I have worked at UNSW or elsewhere, is explicitly acknowledged in the Report.

I also declare that the intellectual content of this Report is the product of my own work, except to the extent that assistance from others in the project's design and conception or in style, presentation and linguistic expression is acknowledged.

You must also type your *name* below the declaration and then *sign* and *date* it. This declaration is usually presented on a separate page

Abstract

The summary shall consist of 250-350 words (preferably not exceeding one page), which indicates:

- the problem investigated;
- the procedures followed;
- the general results obtained;
- the major conclusions reached;

but must not contain any references or illustrative matter, such as tables, graphs or charts.

As the Abstract summarises the whole Project, it is often the last section to be written.

Acknowledgement

It is usual to acknowledge any significant assistance, which has been received in the execution, and reporting of the Project. The style of the acknowledgements can reflect the personal thoughts of the author.

Table of Contents

This Table should list with page numbers each of the following.

- The number and Name of each Chapter, each of its subsections, including the list of References and Appendices
- The Table of Contents may be supplemented by separate: Tables (if any)
- Figures (if any)

Introduction

The introduction should set the stage for the work being undertaken. It should discuss the theoretical background of the problem being investigated, and it should "evaluate" any relevant studies undertaken previously. It thus serves as a link between the past and the present.

It should demonstrate that you are familiar with the literature on the topic, and it should lead logically to a statement of the aim(s) of the project. Reasons should be given as to why the aims are worthy of investigation on the basis of theoretical and/or scientific and/or practical reasons. Likewise, any hypotheses that are being tested should be well founded.

The literature review may be included in the Introduction, or it may be a separate chapter.

Intermediate Chapters

The nature of the next chapters will depend on the type of project that is undertaken. It may be necessary to develop a mathematical or other theory; or to compose a relevant database; or to initially analyse existing information or equipment or procedures; or to select human (or animal) subjects for the investigation. Any such chapters should blend in with the next typical chapter that describes the method used.

Method

The method should be described in sufficient detail so that a reader could repeat the project. This chapter should describe the design of the research, any apparatus and questionnaires developed or used, the techniques of measurement, and any sampling or control devices. It may be appropriate to record the fine technical details (e.g. a questionnaire) in an appendix so as not to detract from an understanding of the experimental design. It is important to mention in this Chapter any spreadsheet or statistical packages which are used.

Results

All results of the project must be reported in this chapter, without bias. Give all the relevant information, and decide whether it would be better assimilated by a reader in tabular or graphical or other pictorial form. Consider whether the raw data should be presented in an appendix. Although any comments or interpretation should appear in the Discussion, sometimes the contextual nature of the results is such that the results and discussion are better presented in a combined chapter.

The results of any mathematical or statistical treatment of the raw data should be included. Details of any associated treatment techniques which are used should be discussed elsewhere (for example, in the Method chapter or in an appendix).

Discussion

Considerable thought and care should be devoted to preparing this chapter. Discuss the results of your work and compare them with those of others, and with any theoretical predictions. Indicate any inferences that can be drawn from the work. Discuss the strengths, weaknesses and accuracy of the methods used. Ensure that you comment on the extent of support or otherwise that the results provide for any hypotheses that were to be tested. Avoid unnecessary repetition. If unexpected results occurred, attempt to advance possible reasons for this outcome. Do not introduce any fresh ideas or literature in this chapter.

Conclusion

This short chapter should follow naturally from the Discussion. Highlight the significant inferences that were presented earlier, and indicate any practical implications that might result from the work. Suggest improvements that could be

made in the project procedures, and indicate where further research is required. Indicate to what extent the stated aims of the project were achieved.

References

A list of references is provided so that the reader is given a clear and accurate guide to the sources from which information has been obtained. This will enable the reader to study any cited reference. This list may contain details of research papers from journals or books, book chapters, government reports, conference proceedings, and so forth.

To simplify the task of compiling references, students are advised to collect and classify all references as the project proceeds. Each reference should include the author(s), title of article, page numbers, publisher, place of publication and year of publication, depending on whether the reference is to a journal article, a book, a chapter or a report. Always indicate the title of the work either by underlining it, or by using a different typeface.

References that have been consulted, but not actually cited, are not included here; they could be included in a Bibliography.

There are several different systems of referencing in common usage, but the two preferred systems are as follows:

- *Author, year system* The author's name and date of publication are included parenthetically in the text thus: "Adams (1994) reported" or "It has been shown (Hall, 1993)" If there are two or more authors or editors, their names should appear in the order given in the item, unless there are more than three, in which case cite the first author and nominate the rest by "et al". The references are listed at the end of the report in alphabetical order of authors' names. If an author has several publications quoted, the date identifies the particular publication. If you are citing more than one publication by the same author(s) from the same year, a small alphabetical symbol is used following the date, thus: (1993a; 1993b). The advantage of this system over the number reference system is that is easier to compile a set of references in alphabetical order and to insert additional references as the report is being compiled.

An example of a list of typical references using this system is presented in Appendix 3.

- *Number System:* In this system, a superscript number is inserted in the text, following the name of an author or a particular statement thus: (Svensson⁴). These numbers refer to the numerical sequence of references at the end of the report. Although this system requires less space in the text than the previous system, its disadvantage is that if any changes are made to the text which contains reference numbers, the whole reference sequence may have to be renumbered in both the remainder of the text and in the list of references. Students with a familiarity with the endnote function of word processing software may be able to overcome this problem.

Alternatively, you may choose to present the reference list in the format appropriate for the journal in which you wish to publish your research.

Referencing World Wide Web (WWW) pages. In-text, citations usually require page numbers, but Internet documents rarely contain them so use the author's name and the date created (eg Yussof 1996). If the author's name is unknown, cite the website URL: (eg <http://www.safesci.unsw.edu.au>). Where possible the name of the Institution associated with the web site, and the date the page was last updated should also be given in the References listing.

Appendices

Appendices are used as a location for further information that either is not required in the text itself or which may detract from the flow of the text. For example, you may use a graph in the text and present in an appendix a table of data on which it is based. The appendices in this Handbook demonstrate this principle.

Requirements for Submission

Two permanent copies of the Report are required to be submitted - one copy is lodged in the School Library; and the other is retained by the supervisor.

1. The permanent copy that is for deposit in the School Library shall be presented in a permanent and legible original typescript, printed copy, laser printed copy, computer printed copy of letter quality or good quality photocopy of one of these. Faded, dirty or faint copies are not acceptable.
2. The permanent copies of all Reports shall be bound by one of a panel of approved bookbinders, each of whom is aware of the University's requirements (see Appendix 5). Names of approved bookbinders will be communicated to students when they enrol in the Project course. Students who reside outside Sydney may seek the permission of their supervisor to use the services of an unapproved bookbinder.
3. The bound volumes shall be bound in boards and covered with buckram:
 - green for MEnvironStudies and MScTech in Environmental Science;
 - blue for MSafetySci;
 - black for MEngSci, MAppSc (Industrial Safety) and MScTech in Industrial Safety;
 - burgundy for MAppSci (OHS) and MScTech in OHS;
 - red for MScTech in Occupational Medicine;
 - student selected colour for MAppSc (Ergonomics) and MScTech in Ergonomics;
 - student selected colour for MScTech in Risk Management.
4. The spine of bound volumes and shall be lettered on the spine, reading upwards (that is, from the bottom of the spine) as shown below:

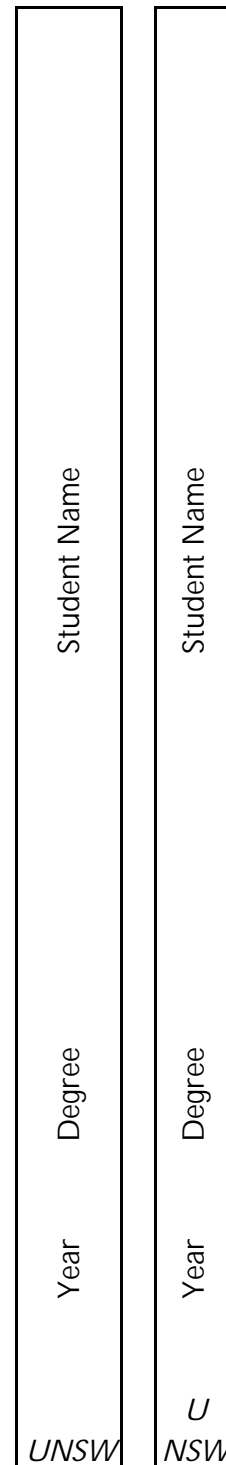
Where, if the spine is placed vertically:

- *UNSW* (or *U* and *NSW* on two lines for narrow spines) is written horizontally at the base of the spine.
- All other lettering is written vertically along the spine.
- *Year* is the year of submission of the Project Report.
- *Degree* is the appropriate award from the following:
 - *MAppSc (Ergonomics)*
 - *MAppSc (Industrial Safety)*
 - *MAppSc (OHS)*
 - *MEnvironmStudies*
 - *MSafetySc*
 - *MScTech in Environmental Science*
 - *MScTech in Ergonomics*
 - *MScTech in Industrial Safety*
 - *MScTech in Occupational Medicine*
 - *MScTech in OHS*
 - *MScTech in Risk Management*
 - *MscTech in Fire and Explosion Safety Management*
- *Name* is the student **Initials** and **Surname**

No further lettering or any decoration is required on the spine or anywhere on the binding. If a student wishes to include the title or short title on the spine, that is a matter for personal preference and cost (letters on bound reports are priced by the letter).

In the binding of Project Reports which include mounted photographs, folded graphs, or other material, leaves at the spine shall be packed to ensure even thickness of the volume.

Sample spines for normal and narrow Project Reports are shown on the right.



Practical Aspects

The practical aspects of producing a Project Report that a student must consider include the operations of typing, proof-reading, inserting diagrams, and binding.

General guidance on these matters is available in the booklet published by the Postgraduate Board of the Student Guild (1993).

Examination of Past Research Project Reports

To assist students in achieving the high standard that is expected in Project Reports, especially at the masters level, reproduced below are examples of actual extracts from examiners reports of previous Project Reports submitted by School of Safety Science:

- Firstly, there are a number of typographical, grammar and pagination errors in this latest draft.
- This level of theory is quite unnecessary in a report of this nature, which does nothing to establish the candidate's research competence, apart from how to access relevant information and copy/reformat such information into a report.
- This is a fairly limited literature survey.
- A major limitation of the project is that the system was developed without reference to relevant standards.
- ... indicates that this research report does not contain a substantial research component.
- The methodology used in this project will not answer the experimental hypothesis.
- An insufficient number of samples were collected.
- It appears as if the student doesn't know how to use the equipment.
- The questionnaire asks the wrong questions.
- I cannot work out if the analytical equipment was properly calibrated.
- Adequate quantities of data were obtained, but there is some confusion in their presentation.
- Much more could be made of this data than the report contains.
- Some summary tables or figures would be useful additions.
- The Discussion is very short, and unfortunately, inadequate. More discussion is required regarding technical problems in carrying out these assays, assay accuracy, sensitivity and specificity, and possible use of assays in the future.
- The candidate has conducted only a cursory literature review, relying on older textbooks and manuals.
- The number of references in the bibliography is quite small for a report of this nature.
- This demonstrates that the student is unable understand simple suggestions.

- It is almost as if the student ran out of steam. This is a pity, as it detracts from the rest of the report.
- The project satisfies requirements of the UNSW for a project report, but at 55 pages in length, needs more work and considerable re-organisation to get a better grade.
- This report is not of a suitable quality to be passed.

It is strongly recommended that students make sure that an examiner's assessment of your report does not contain such comments.

PART 4: ADMINISTRATIVE MATTERS

Before the Project Report is submitted for examination, the supervisor shall advise the student as to whether the proposed Project Report is of a suitable standard to be formally examined. Any amendments recommended by the Supervisor shall either be incorporated by the student, or the matter otherwise resolved to the satisfaction of the Supervisor.

Submission of Project

1. One or two copies (as appropriate, see below) of the examinable Report shall be prepared and each copy temporarily bound in a two-ring binder or soft bound. They shall be accompanied by a single Project Report Submission Form as shown in Appendix 6, and submitted to the School General Office (Room 19, Hut B10). The form also shows the School record of the processing of the Reports.

DO NOT SUBMIT YOUR FINAL PROJECT REPORT TO YOUR SUPERVISOR.

2. Before submission, the student is to complete Part A of the *Application to Submit* form (Appendix 6).
3. The copy/ies of the examinable Report will be sent by the School to the examiners for assessment.

Examination

School Policy requires that all Project Reports be formally examined. The number of examiners varies according to the number of units of credit of the Project.

- o SESC9912, 12 UOC Project: one examiner
- o SESC9918, 18 UOC Project: two examiners
- o SESC9924, 24 UOC Project: two examiners

The examiners are nominated by the supervisor in conjunction with the Program Authority. The supervisor may also discuss the names of possible examiners with the student.

Selection of examiners is based on their technical expertise, and their knowledge of the standard necessary for a Project Report at the Masters Level. It is usual for the Supervisor to be an examiner of the Project Report.

The examiners may award up to the maximum number of marks allocated to the different aspects of both the conduct of the Project and the presentation of the Report. These are shown on the of *Examiners Report* form, (Appendix 7).

The examination usually results in one of the following outcomes:

- o Report should be accepted with no change.
- o Report should be accepted with minor changes.
- o Report should be accepted only after major revision.
- o Report should be rejected.

When the two copies have been assessed, they will be returned to the student. Any alterations which have been recommended should be carried out to the satisfaction of the supervisor.

When any necessary amendments have been completed to the satisfaction of the supervisor, the candidate shall submit to the School the requested number of corrected and permanently bound copies. Candidates will not be permitted to proceed to graduation until the bound copies are received.

The candidate will then be advised officially by the Registrar of the mark obtained for the Project Report.

One copy of the permanent Report will be deposited in the School Library; the other copy will be retained by the supervisor.

The University is committed to the principle of Freedom of Information. Accordingly examiner's comments can be made available to students on request. However, the identity of the examiner may be kept confidential.

The University contends that a project report or thesis submitted for a higher degree and deposited in the Library should be retained not only for record purposes but also, within copyright privileges of the author, should be public property and accessible for consultation at the discretion of the Librarian. The University also recognises that there may be exceptional circumstances requiring restrictions on copying or conditions of use. Any requests for restriction for a period of up to two years must be made in writing to the Registrar.

Paper for Publication

Each student is expected to present, together with the hard bound copies of the Project Report, a 2000-4000 word summary of the project which is in a form suitable for submission for publication in a professional journal. This article may be written with the assistance of the supervisor, so that both names will usually appear as joint authors. Other authors may also be included, as necessary. The student, with the assistance of the supervisor, should select one or more suitable journals to which the article might be submitted. The article should be appropriate in terms of technical content, style and format for acceptance by the intended journal(s).

If the intended journal has a format for the presentation of references which differs from that given in this Handbook, the alternative journal format could be used in the Project Report providing that:

- (a) the supervisor gives assent in writing; and
- (b) recognition of the style of referencing is mentioned at the top of the list of references in the Project Report.

If the summary article is not published in a professional journal, it should be submitted to the Head of School for publication as a School Report.

Target Dates

A student must be officially enrolled when a Project Report is submitted for examination. Students may initiate the submission of a Project Report at any time. However there are specified dates by which the soft-bound copies are to be submitted if a student wishes not to enrol and not pay fees for the Project in another Session; and if a student wishes to be considered for inclusion in a particular graduation ceremony. The details are as follows:

To graduate or prevent need to re-enrol in Session 2 in any year.

- *Last Friday in July* is the last day for Report to be received for examination and to prevent need for re-enrolment in session 2.

To graduate or prevent need to re-enrol in session 1 in any year

- *Last Friday in January* is the last day for Report to be received for examination and to prevent need for re-enrolment in session 1.

Students should be aware that examiners are likely to be asked to assess several Project Reports at about the same time. Hence Reports should be submitted well in advance to enable examiners to meet target dates.

Gratuities

Although some students may wish to express their gratitude in a tangible way to a member of staff, such as a project supervisor, the University does not permit a member of staff to accept a gift from a student. If a student feels so disposed, a gift may be donated to the School.

PART 5: REPORTS (3 UOC) AND SPECIAL REPORTS (6 UOC)

SESC9903 Report (3 UOC) and SESC9906 Special Report (6 UOC) are report based courses. These courses have been introduced to allow students who have all but three or six of the requisite number of credits needed for award of their degree, to undertake directed study in a specialist area in the school's areas of activities.

To pass these courses, students will be required to prepare and submit a report on a topic in the school's areas of activities (which includes topics in occupational health and safety, industrial safety, risk management, ergonomics, occupational medicine and environmental science).[#]

The process of topic selection can be facilitated by a member of the academic staff of the School of Safety Science, who will act as report supervisor and report assessor.^{*} The selection of a topic and of a report supervisor should be made at the same time, and students should maintain regular contact with their supervisor.

The Purpose of the Reports

The purpose of these report courses is to improve student skills in:

- the collection of relevant information;
- ability to demonstrate technical expertise;
- the analysis and critical synthesis of key points and critical comment of those points;
- being concise; and
- in written communication to others.

Report Formats

The report can be in the form of a pilot research study or a literature review.

The preparation of reports usually involves the assembling of information from diverse sources, and analysing such information for specific topics and themes. Marks will not be awarded for reports that contain only material that is copied from other sources, as this merely demonstrates an ability to find original information and reproduce it uncritically.

In addition, although well constructed and well presented reports may attract good marks, it is important that students recognise that one expectation of education at the Diploma or Masters level is the ability to provide critical comment, especially of the material being provided for assessment. Generally, extra marks will be given for such critical appraisal and comment. Basically, the

[#] A student cannot choose a topic for a project that will be the subject of a 12 UOC project.

^{*} Academic staff from other Schools can also act as report supervisors, at the discretion of the Head of School of Safety Science or the relevant Program Authority.

report should be written in such a way that it demonstrates the student's knowledge and mastery of the topic.

The length of the report will vary, depending on whether it is for three or six units of credit (UOC) credits, and whether it is a research report or a literature review. As a very approximate guide, 3 UOC reports should be not less than 5,000 words in length, and 6 UOC special reports less than 10,000 words in length. These numbers are the lower estimates for reports that are literature reviews. Conversely, research reports may be shorter.

Preferably, the report should be typed, although written reports in neat handwriting will be acceptable. In any event, the report should be legible. Please pay attention to the spelling of technical terms and to the accuracy of points made.

When preparing the report, students should not use assignments prepared previously as part of the assessment for other subjects. It is also envisaged that for Masters students, the subject topic of any report would be different from the subject of a major research project.

Assessment

One copy of the report should be submitted for assessment. Assessment of the report will be made by the student's supervisor. If necessary, the report may be assessed by a second examiner. The report assessor(s) may make recommendations for the report to be revised before it is finalised.

Criteria for Assessing the Report

Of the marks given for report assessment, marks will be awarded for:

- the development and flow of ideas (ability to organise);
- the logic and clarity of the presentation of ideas (presentation skills);
- the demonstration of mastery over the topic (analytical ability);
- the ability to provide competent criticism (critical ability).

As with other subjects, marks from the assessment are graded as Fail; Pass; Credit; Distinction; or High Distinction.

An examiner's assessment form for assessment of reports is attached at Appendix 8. Usually, only one examiner is required.

The report should be prepared, submitted and assessed within one session.

PART 6: ADDENDA

This part contains the References and Appendices that have been mentioned in the text, and which are listed in the Contents. It also contains in the Bibliography a list of publications which students might find helpful.

References

Phillips, E.M. and Pugh, E.M. (1992) *How to Get a Ph.D.* Open University Press, Milton Keynes.

Postgraduate Board (1996) ***Practical Aspects of Producing a Thesis at the University of NSW.*** Student Guild, University of New South Wales.

University of New South Wales. (1995) ***Applied Science Handbook.***

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University of New South Wales. Academic Board, (1993) ***Preparation and Submission of Project Reports and Theses for Higher Degrees.***

Bibliography

Anderson, J. and Poole, M. ***Thesis and Assignment Writing.*** (1994). Brisbane, Wiley. 2nd edition.

Australian Government Publishing Service (1994) ***Style Manual for Authors, Editors and Printers,*** Canberra, AGPS, 5th edition.

Ebel, H.F., Bliefert C. & Russey, W.E. (1987) ***The Art of Scientific Writing,*** Weinheim, F.R.G. VCH.

Madsen, D. (1983). ***Successful Dissertations and Theses,*** Jossey-Bass, San Francisco.

Mauch, J.E. & Birch, J.W. (1989) ***Guide to Successful Thesis and Dissertations: Conception to Publication,*** New York, Marcel Dekker Inc.

Windschuttle, K. and Elliott, E. (1993) ***Writing, Researching, Communicating.*** McGraw Hill, Sydney. 2nd edition.

Appendix 1: Research interests

Outlined below are the research interests of the academic and visiting staff of the School.

Professor Jean Cross (Room 3, Hut B10, Ph: 9385-5344)

Risk management, risk assessment; electrical safety; accident analysis.

Dr Tony Green (Room 2, Hut B10, Ph: 9385-5469)

Fire and explosion, Major Hazards Risk Assessment.

Mr Roger Hall (Room 13, Hut B10, Ph: 9385-5680)

Ergonomics and new technology, product usability, visual ergonomics and lighting; computer based accident data analysis.

Dr Kamal Kothiyal (Room 106, Hut B11a, Ph: 9385-5573)

Ergonomics, biomechanics, manual materials handling.

Dr Daniela Leonte (Room 4, Hut B10, Ph: 9385-4744)

Risk management, Environmental risk assessment, decisions under uncertainty, statistical analysis.

Dr Andrew McIntosh (Room 152, Hut B9 Ph: 9385-5348)

Mechanics of the musculo-skeletal system, biomechanics of trauma and rehabilitation, motor vehicle safety, manual handling, physiotherapy.

Dr Amanda Hayes (Room 124, Hut B11a, Ph: 9385-5369)

Chemical safety, toxicology, immuno-toxicology, cell biology, molecular biology, pathology.

Dr Ron Rosen (Room 105, Hut B11a, Ph: 9385-5347)

Radiation protection, radiation dosimetry, nuclear reactor safety, radioactive waste disposal, non-ionising radiation; safety engineering, professional certification.

Mr Philip Turner (off campus, Ph: 9385-4144)

Occupational hygiene.

Mr Warwick Williams (off campus, Ph: 9385-4144)

Noise management.

Assoc Prof Chris Winder (Room 20, Hut B10, Ph: 9385-5370)

Chemical safety, laboratory safety, MSDS; toxicology of heavy metals, solvents and pesticides. Occupational toxicology.

Projects relating to community and sports safety may also be undertaken in conjunction with the NSW Injury Risk Management Research Centre.

Appendix 2: Presenting a project progress report

Presenting a progress report on a project can be a new experience for some students. Here are some hints that may be helpful, but do not regard them as a prescriptive set of directions.

HOW DO YOU PREPARE FOR A PRESENTATION?

- Be clear as to the purpose of your presentation. Is it a critical analysis of some material, or is it the development of an argument, or is it simply to inform?
 - Have an outline plan. This should specify -
 - Introduction - what you are going to cover in the presentation.
 - Main Body - the logical point by point development of your paper.
 - Conclusion - weigh up any arguments presented.
 - Summarise concisely the main points of your paper at the end of your presentation.
- Your introduction and summary are most important to listeners. Spell out clearly what your topic is, what line of argument you'll follow, define new terms and concepts, and tie these together briefly at the end.
- Remember your presentation is oral, and people cannot process as much information when they are listening as when they are reading and proceeding at their own pace. So keep your presentation clear, simple and concise. A one page written version of your paper could be handed to your supervisor after your presentation.
- Analysis of material rather than just description becomes important as the project proceeds.
- Consider using different media to vary your presentation.
- Plan your timing. Plan your approach so as to allow time for discussion.
- Check your topic and your approach with your supervisor.
- Rehearse your presentation beforehand several times. Speak it out loud in front of a mirror, or get someone to listen and to provide comments.

HOW DO YOU PRESENT YOUR REPORT?

- In some situations it is necessary to stand, for example, if using a blackboard or audio visual aids. But remember to face the audience.
- Speak loudly and clearly enough so everyone can hear. Enunciate technical words clearly and correctly.
- Use voice emphasis, facial expression and gestures to stress points and to avoid monotony.

- Don't rush. Speak slowly enough so your points can be followed, even repeating key words or phrases where necessary.
- Remember to maintain eye contact with the group and supervisor.
- Try not to slavishly read every word. Prepare a point form summary of your paper and use it when rehearsing your presentation.

Some suggestions are -

- Project a summary of the main points of your paper on to the screen.
- Use diagrams to illustrate concepts and relationships.
- Illustrate factual input by items such as pictures, graphs, tables and models.
- Make sure that graphs and diagrams are clear and not too crowded with information.
- Transparencies and slides should have a maximum of 8 words per line, and 8 lines per page. In preparing typed material, 24 point is the smallest font that should be used.

DON'T CROWD YOUR OVERHEADS!!!!

- Make sure your visual aids can be read from the back of the room.
- Be prepared to explain any diagrams fully, and to answer questions about them.
- Remember to use audio-visual media as an adjunct to your presentation. However, don't let them supplant the purpose of your paper.
- Develop your own individual approach. A creative presentation is stimulating to all members of the audience.

WHAT DO YOU DO IF YOU'RE NERVOUS?

Even experienced speakers are initially nervous. So if you are nervous, the following suggestions will help.

- Having rehearsed your presentation and being well prepared will help you feel more confident. Follow the suggestions above. Prepare a written point form summary and rehearse your presentation beforehand for correct timing and clear presentation.
- Try doing a few relaxation exercises before the presentation. Take a deep breath, say the word 'relax', and let the tension flow from all parts of your body.

Having carried out the above procedures, you should now be confident about your presentation. Demonstrate this confidence to the audience.

Appendix 3: Example of author, year referencing system**(a) Books:***Having an author*

Lewis SM, Moore H, Winder C (1993). ***A survey of solvent use in New South Wales***. Sydney, Worksafe Australia/WorkCover Authority.

Having an editor

Ridley, J, editor. (1990). ***Safety at Work***, third edition. London, Butterworths.

Without an author or editor

McGraw-Hill Encyclopedia of Science and Technology, seventh edition. (1992). New York, McGraw-Hill.

Written by an organisation

UNSW (1990). ***Educational Profiles for 2000-2003 Triennium***, Vice-Chancellor's Division, University of New South Wales. Kensington, The University of New South Wales.

(b) Chapter in a Book:

Fair, MF (1973). Radiation quantities and units. Chapter 3 (pp 26-39) In Morgan, KZ and Turner, JE, editors ***Principles of Radiation Protection***. New York, Robert E Krieger.

(c) Journal Articles:

Kothiyal K, Mazumdar J, and Noone G (1992). A biomechanical model for optimal lifting postures. ***International Journal of Industrial Engineering***, 10(3): 241-255.

Nicholls EM and Markovic B (1989). Occupational dermatitis. ***Australian Health and Safety Quarterly Journal***, 1: 5-7.

(d) Conference Proceedings:

Shikdar A, Carlopio J, Cross J, Gardner D, Kothiyal K, Stanley P (1993). ***Mechanical equipment injuries in small businesses***, in Pollock CM, Straker LM editors *Ergonomics in a Changing World*, Proceedings of the 29th Annual Conference of the Ergonomics Society of Australia, Perth. Canberra, Ergonomics Society of Australia, 199-205.

(e) Report:

Yatapanage, KG and Post K (1990). ***Respirator design - a novel technique based on 3-D contours of the face***. Centre for Safety Science Report CSS\90\2. Kensington, The University of New South Wales.

(f) Thesis:

Lloyd DG (1993). ***Development and application of a gait analysis system***, PhD thesis. Kensington, The University of New South Wales.

(g) World Wide Web (WWW) Page:

Yussof S (1996). School of Safety Science: Contacts.
<http://www.safesci.unsw.edu.au/contacts.htm> (School of Safety Science,
University of NSW). Last updated Feb 2002.

Appendix 4: Example of a title page

THE UNIVERSITY OF NEW SOUTH WALES
SCHOOL OF SAFETY SCIENCE

*SAFETY, HEALTH AND ENVIRONMENTAL
PRACTICE IN THE MINING INDUSTRY*

by
N Saifact
Student No 93854144

A 12 unit of credit report submitted in partial fulfillment
of the requirements for the degree of
Master of Science and Technology in Industrial Safety

March 2001

Appendix 5: Approved copiers and bookbinders*Copying*

Unicopy is the UNSW photocopying service, located in the University Library. It has extensive copying facilities and is able to offer an efficient and economic service for the copying of theses and project reports, normally about 10 cents per page.

Binding

The following bookbinders are aware of the University's requirements:

A survey in November 1999 of these book binders asked for quotations for three hardbound copies of an 80 page project report:

<i>Company</i>	<i>Address</i>	<i>Basic cost[†]</i>	<i>Extra costs</i>
All-book Bindery	91 Rydale Rd West Ryde 2114 Ph: 9807 6026	\$20	Title on cover or spine: each word approx 80¢. Additional charge for speedy turnaround
Balos Bookbinding	11 Regent St (Broadway end) Chippendale 2008 Ph: 9698 5877 9698 5899	\$30	Title on cover: each letter 30¢ plus \$16 setting
LJ. Cullen Pty Ltd	19 Arab Rd Padstow 2211 Ph: 9772 3200	\$31 includes all lettering on spine, whatever will fit	\$36 for extra five lines on cover
Keen Bookbinding	53 Yowie Ave Caringbah 2229 Ph 9524 3058	\$45, also includes a 5 word title on cover	
Sussex Bookbinding	3 Jupiter St Winston Hills 2153 Ph 9639 3647	\$30	\$5 -\$10 extra for title on cover, plus extra \$5 each book for a 24 hr turnaround

[†] Includes costs for name, year, degree and "UNSW" on spine.

Appendix 6: Application to submit a project report*Application to Submit a Project Report (12 Units of Credit or more)*

The student is required to complete Part A of this form and submit this form and two bound copies of the research project report to the School.

Part A - To be Completed by the Student

Student Name: _____ Student No: _____

Address: _____

_____ Telephone: _____

Program: _____ Units of Credit: _____

Title of Project: _____

Approved for Submission: _____ Date: _____

Signature, Student

Part B - To be Completed by the Academic Supervisor

Supervisor: _____

Approved for Examination: _____ Date: _____

Signature, Supervisor

Examiners: 1 Name: _____

Address: _____

_____ Telephone: _____

2 Name: _____

Address: _____

_____ Telephone: _____

Part C - Office Use Only

Examiner 1 Report Received: _____ Date: _____ Mark: _____

Examiner 2 Report Received: _____ Date: _____ Mark: _____

Copies of Bound Report Received: _____ Date: _____

Part D - To be Completed by the Program Authority

Requirements for a Project Satisfied: _____ Pass: _____ Fail: _____

Assessment Finalised: _____ Mark: _____ Grade: _____

Approved for Award: _____ Date: _____

Signature, Program Authority

Appendix 7: Examiner's report of a project report (12 UOC or more)

THE UNIVERSITY OF NEW SOUTH WALES
SCHOOL OF SAFETY SCIENCE

Examiner's Assessment of a Project Report (12 UOC or more)

<i>Student Name:</i>	_____	<i>Student No:</i>	_____
<i>Program:</i>	_____	<i>Course No:</i>	_____
<i>Title of Project:</i>	_____		

Examiner's Statement and Comments (use other pages if required)

Guidelines for Examiners

Criteria of Acceptability	Inadequate [†]	Poor	Good	Excellent
<i>Identification of problem</i>				
<i>Originality</i>				
<i>Demonstration of analytical skills</i>				
<i>Sufficient information collected</i>				
<i>Demonstration of critical skills</i>				
<i>Sufficient number of references</i>				
<i>Overall presentation</i>				

[†] Any entry as "inadequate" normally indicates that the project must be revised and resubmitted before further examination. Examiners may use their discretion to recommend revision for reports that have "poor" entries.

Marking Guidelines	Section of Report	Marks
<i>Establishment of Objectives</i>	Introduction, literature review, aims, hypothesis	_____ out of 30
<i>Achievement of Objectives</i>	Materials and methods, [†] results, [†] discussion [†]	_____ out of 55
<i>Presentation of Report</i>	Presentation, spelling and grammar, referencing	_____ out of 15
Total		_____ out of 100

[†] Each section should be marked out of at least fifteen marks. Extra marks may be given to any section at the examiners discretion.

Examiner

Name (inc. Title): _____

Address: _____

Signature: _____

Date: _____

Please send the completed Examiners Report marked as confidential to:

Assoc Prof Chris Winder
 Head of School
 School of Safety Science,
 University of New South Wales
 Sydney NSW 2052

Please Note:

It is University policy to allow candidates to see a copy of examiner's assessments of project reports. However, the identity of the examiner may be kept confidential. Please tick the box on the right if you wish to keep your name confidential.

I wish my identity to be kept confidential

Appendix 8: Examiner's Assessment of a Report (3 UOC) or Special Report (6 UOC)

THE UNIVERSITY OF NEW SOUTH WALES
SCHOOL OF SAFETY SCIENCE

Examiner's Assessment of a Report (3 UOC) or Special Report (6 UOC)

Student Name: _____ *Student No:* _____

Program: _____ *Course No:* _____

Title of Report: _____

Examiner's Statement and Comments (use other pages if required)

Marking Guidelines

Development and flow of ideas (ability to organise):	Development of ideas	/10	/20
	Logical flow	/10	
Logic and clarity of the presentation of ideas(presentation skills):	Presentation	/10	/20
	Spelling and Grammar	/5	
	Referencing	/5	
Demonstration of mastery over the topic(analytical ability):	Introduction	/15	/30
	Main Themes	/15	
Ability to provide competent criticism (critical ability):	Discussion	/20	/30
	Conclusion	/10	
		<i>Total</i>	<i>/100</i>

Examiner

Name (inc. Title): _____

Address: _____

Signature: _____

Date: _____

*Please send the completed
Examiners Report marked
as confidential to:*

Prof Jean Cross
Head, School of Safety Science
University of New South Wales
Sydney NSW 2052

Please Note:

It is University policy to allow candidates to see a copy of examiner's assessments of project reports. However, the identity of the examiner may be kept confidential. Please tick the box on the right if you wish to keep your name confidential.

I wish my identity to be
kept confidential