Standard Report Formats

1. Report Layout

- Preface
- The Body of Report
- The Appendix Section
- Report Binding

1. Report Layout :The report layout is an overview of the general presentation from the front cover to the back cover. It is briefly discussed in terms of the prefatory section, the body of the report (main text) the appendix and the binding.

- The prefatory section (or preface) is the totality of the parts between the front cover and the beginning of the main text of a report or book. It is made up of the title page, table of contents, list of figures and list of tables. Other items that are sometimes included in the prefatory section are an abstract or summary, letter transmittal, acknowledgement and a preface.

- The body of the report is constituted by the sections which contains the message of the report. It begins with the introduction, commonly designated as the first chapter, and the includes all the chapters and the references. In most dissertations and other research publications, the body consists basically of four chapters, namely Introduction, Literature Review, Methodology, results and Discussions.

- The appendix section of a report contains extra information that relates to the content of the main text. Any material that should be included in a report but which, for the sake of readability, cannot be included within the main text may be included as an appendix. Example of materials included in a report or book as appendices are detailed description of materials, apparatus, operating procedures, detailed experimental results, charts, monographs and standard tables.

- Report binding : The front and back covers of a report and the way the two are tied with the report inside constitute the binding. The covers serve to protect a report against rough handling and dust and to make it attractive to look at. A manuscript may be soft –bound or hard – bound

2. Mechanical Accuracy: the elements of mechanical accuracy include types and sizes of paper, margins, spacing and indenting, paging, footnoting and correct uses of abbreviations, numbers, punctuation and capitalization.

- Paper on which letters and reports are written come in different sizes of which the A4 size is commonly used.
- Margins: it is necessary to leave adequate margins at the left ,right ,top and bottom of the sheet. As a general rule about 38mm is used for the left margin and 25 mm for the top, bottom and right ,margins.

- Spacing and indenting: The text of a formal report is normally double – spaced. This is accomplished on the typewriter by setting the line space regulator to 2. This regulator is located on the left end of the carriage. It can be used to set vertical spacing to 1, 1.5,2,2.5 and 3 line spacing. Indentation refers to horizontal spacing. it is done on typewriter and the keyboard of a computer by the use of a key often labeled ‘Tab’. Each tap on the tab causes the computer to move a preset number of spaces in the horizontal direction.

- Paging : For the purpose of paging, a manuscript (thesis, report, rebook) is in two parts, namely: the prefatory customarily paged with lower case Roman numerals(e.g. ii, iii, iv, etc). These numbers may be placed centered at top of the sheet, or in the upper right corner, or centered at the bottom. Placing them centered at the bottom seems to be common practice and is the recommended practice in the book

Check List for An Abstract

- ☐ An *Executive Summary*:
  - ☐ Does it give the information appropriate to a managerial readership?
  - ☐ Is it written so that a non-technical person can understand it?
  - ☐ Does it follow the structure of the main document?
  - ☐ Does it have appropriate descriptive headings, numbered blocks of information and is it highlighted by boldfacing?
  - ☐ Is it written for accessibility of information, and the speed and convenience of the reader?

Front Page and Title Page

- Front Page
- Title Page

Checklist for the title

- ☐ Does it give the reader immediate access to the main point of your work?
- ☐ Does it adequately describe the significant features of your document?
- ☐ Does it use the fewest possible words and still make sense?
- ☐ Is it too long?
- ☐ Is it too general?
- ☐ Is it too detailed?
- ☐ Does it make sense?

Checklist for the title page

Does the title page show:

- ☐ an informative title?
- ☐ your name?
- ☐ the name of your department/faculty/organization?
- ☐ the date of submission?
- ☐ possibly, a declaration that it is your own work?
- ☐ for a thesis, the degree for which the thesis is being submitted and the name of the institution to which the thesis is being submitted?

Abstract - Descriptive

Title of document: On-road monitoring of ambient carbon monoxide levels

Abstract

This study aims to measure the on-road spatial distribution of levels of carbon monoxide, a health hazard known to be increasing in Middletown. Methods of measurement are discussed and the difference between on-road and fixed-site data is analysed. The influence of temperature, wind speed and humidity is considered. Conclusions as to the effectiveness of this method of carbon monoxide monitoring are given, together with suggested recommendations for future air quality sampling programmes.

Informative Abstract

Title of document: On-road monitoring of ambient carbon monoxide levels

A statement to place your investigation in context

This study measures the on-road distribution of levels of carbon monoxide, a health hazard known to be increasing in Middletown, and compares the levels with those obtained from fixed-site monitors. Data from fixed sites have been previously used in air-quality monitoring programmes, but there has been doubt about their accuracy in determining levels of carbon monoxide at the adjacent on-road sites.

To state why you have done the study.

Method of investigation

Levels of carbon monoxide at 1.5 m above road level were monitored during commuter traffic at peak hours, using a moving vehicle on a selected route where fixed monitors were located. The on-road concentrations were found to be greater by three times than than those recorded at the adjacent fixed sites (mean values of 11.4 + 2.0 SD ppm and 3.9 + 0.8 SD ppm relatively). Levels were also found to increase with decreased temperature and wind speed, and increased relative humidity.

The results, quantitatively expressed

Your conclusions

It is concluded that fixed-site data are significantly under-representing ambient levels, and that the methods were effective in measuring the spatial distribution of carbon monoxide, estimating commuter exposure and assessing the effectiveness of fixed-site monitors. An on-road monitoring programme is recommended as a supplement to the present system of monitoring air quality.

Your recommendation

Table of Contents

- Table of Contents

Checklist for the Table of Contents

- ☐ Does it list the preliminary pages, and give their page numbers in Roman numerals?
- ☐ Does it list the:
  - ☐ chapter headings?
  - ☐ section and subsection headings?
  - ☐ the References section?
  - ☐ each appendix?
- ☐ Does it give the correct section number of the sections, subsections, the References section and each appendix?
- ☐ Does each appendix have a title?
- ☐ Do the page numbers match up with those in the text?
- ☐ Is it consistently formatted? Are the indentations of the sections and subsections consistent?
- ☐ In the main text: does each chapter heading and subheading match the sequence and numbering of those given in the Table of Contents?

Checklist for the List of Illustrations

- ☐ Are all the figures listed first, then the tables?
- ☐ Is the number, title and page of each illustration given?
- ☐ Do the page numbers match up with those in the text?
- ☐ Conversely, in the main text, do the illustration numbers in the text match those in the List of Illustrations?

Introduction

It has been previously shown (past) that plants flower (present, because it's established knowledge) under environmental conditions that maximize seed set and development . . . Much work has been done (past) towards understanding the environmental, physiological and genetic regulation of flowering in the species under study . . . Brown (1998) showed that the mutants flowered (past) later than wild-type plants; GI was therefore proposed (past) to be a floral promotion gene. This work describes (present) research undertaken to verify the isolation of . . .

Literature Review

Purpose of a literature review

To show that you have a good understanding of the background of your topic of research or investigation. To do this you need to do the following:

1 Give a coherent account of the various areas of research relevant to your topic.
2 Give a historical account of its development. Its history may span many years or very few, if it is a recently developed area.
3 Show that you know who has done the relevant work, by citing at the appropriate points in the text the names of the authors and the years in which the work was published.
4 Show the links between the various areas of the body of knowledge – the correlations, contradictions, ambiguities and gaps.
5 Show the weaknesses of other work and techniques.
6 Provide a summary of available techniques and materials.
7 Show how your work will form an original contribution.

Literature Review

Checklist for a literature review

Does your literature review:

- ☐ show the issues that have been dealt with in the past?
- ☐ show the issues that need to be currently addressed?
- ☐ show the correlations, contradictions, ambiguities and gaps that exist?
- ☐ show the conflicts between research 'camps'?
- ☐ give an analysis and commentary that makes it clear that you understand the issues?
- ☐ avoid giving just an account of who did what and when?
- ☐ cite the key reviews on the subject? The key papers? The more fringe papers?

Section Covering Planning Tasks

PLANNING SCHEDULE – 2000

Research Project: **Modification of a pulsatile pump for an isolated heart**

No.	Activity	Feb	Mar	Apr	May	June	Estimated no. of hours
1.	Literature search						20
2	Test and assess the current pumping system						40
3	Design the modifications to the current system						20
4	Build components						40
5	Assemble, test and evaluate the rig						60
6	Modify and retest the rig if necessary						50
7	Evaluation of the final results						40
8	Write the final report						60
						Total Time (hours)	330

Figure 2.1 Example of a Gannt chart for time scheduling

Materials and Methods

Checklist for the Materials and Methods/Procedure

Does the Materials and Methods section:

- ☐ give enough information to allow another competent worker in your field to repeat your work?
- ☐ give the necessary detail about the equipment used, e.g. the model number of an instrument?
- ☐ avoid detailed description of standard instrumentation and techniques?
- ☐ give the necessary details of:
  - ☐ modifications to standard instrumentation and techniques?
  - ☐ new techniques?
  - ☐ any organisms used, e.g. species, variety, age, weight?
- ☐ State precise treatment/drug regimens?

Results

Checklist for the results

- ☐ Are your illustrations well chosen?
- ☐ Are the illustrations well presented and self-explanatory?
- ☐ Is there an explanatory text pointing out the key results and trends?
- ☐ Have you avoided giving a blow-by-blow account of the data?
- ☐ If you have a lot of repetitive data, have you given only representative data in the Results?
- ☐ Have you avoided discussing the results?
- ☐ Have you included the results that do not support your hypothesis?
- ☐ Have you avoided citing references?

Conclusions

Checklist for the Conclusions

- ☐ Is there any material in the Conclusions that does not appear elsewhere in the document? If so, go back and incorporate it.
- ☐ Is there a sound basis for each of your conclusions?
- ☐ Is your first conclusion your main one?
- ☐ Are the other conclusions given in descending order?
- ☐ If necessary, do you point out the importance, significance, validity, criticisms or qualifications of your work?

Recommendations

Checklist for the recommendations

- ☐ Is your first recommendation your main one?
- ☐ Are the other recommendations presented in descending order of importance?
- ☐ Is each recommendation brief, clearly stated and unambiguous?
- ☐ Is each recommendation feasible?
- ☐ Is each one related logically to material presented elsewhere in the report?

Figures

Figures

- ☐ Is the figure needed?
- ☐ Could it be simplified?
- ☐ If it is a graph, are there too many lines? Would it be better to consider having more than one graph to illustrate the point?
- ☐ Is the material better presented as an illustration in the text or as an illustration in the Appendices?
- ☐ Are all the figures numbered consecutively, logically and consistently?
- ☐ Is there enough detail in the figure's title, caption and keys for an overall interpretation of the figure without reference to the text?
- ☐ Does the title correspond with that given in the List of Figures?
- ☐ If you have used or modified someone else's figure, or used someone else's data to construct your own figure, have you:
  - cited the source in the caption to your figure?
  - used the wording required by referencing conventions?
  - cited the source in your List of References?
- ☐ For any document other than a journal paper, Is the figure close to but following the place where it is first mentioned in the text?
- ☐ For a journal paper, are the figures prepared exactly according to the Instructions to Authors?

Graphs

Graphs

- ☐ Are the x and y axes labelled?
- ☐ Are the units of measurement stated on the axes?
- ☐ Are the lines clearly distinguishable from each other?
- ☐ Are the symbols marking the points clearly distinguishable from each other?
- ☐ Are all the components of the figure clearly labelled?
- ☐ Are abbreviations explained? If not, are they well known? Are you sure?
- ☐ Does the arrangement of the figure proceed from left to right?
- ☐ Does the figure look cluttered and illogical?
- ☐ Is the figure correctly positioned on the page?
- ☐ Is the raw data of important graphs presented in the Appendices?

Tables

Checklist for tables

- ☐ Is the table needed?
- ☐ Could the data be better presented as a figure?
- ☐ Is the material better presented as a table in the text or as a table in the Appendices?
- ☐ Does each table deal with a specific question?
- ☐ Does the table have a clear, uncluttered layout? Could it be simplified?
- ☐ Does each table show what the text says it shows?
- ☐ Are all the tables numbered consecutively?
- ☐ Is your numbering system consistent throughout the document?

Tables

- ☐ Does the title correspond with that given in the List of Tables or List of Illustrations?
- ☐ Does the page number where the table appears correspond to that given in the List of Tables or List of Illustrations?
- ☐ Are all the tables of a similar format?
- ☐ Does each table have an informative, explanatory title?
- ☐ Is the wording of the stubhead and the boxhead(s) also contained in the title of the table?
- ☐ Is there enough detail in the table's title, caption and keys to interpret the table?
- ☐ Is the table as self-explanatory as possible, without the reader having to refer to the text to understand it?
- ☐ Are symbols and abbreviations explained? If not, are they well known? Are you sure?
- ☐ Are you using too many decimal points?
- ☐ Are there missing or extra numbers?
- ☐ Are units of measurement stated?
- ☐ Is there too much detail?
- ☐ Are column entries aligned?
- ☐ Are column headings short (no longer than two lines)?
- ☐ Is the table positioned correctly on the page?
- ☐ For a document other than a journal paper, is the table close to but following the place where it is first mentioned in the text?
- ☐ For a journal paper, Does it match the journal style (as set out in the Instructions to Authors) in *all* its features?

Proposal

Checklist for a research proposal at the start of academic work

Does the proposal contain:

- ☐ a clear explanation of the general framework of the previous research in your area, together with appropriate specific work?
- ☐ a clear statement of your objectives?
- ☐ the expected stages of the research and the expected methodology for each one?
- ☐ a description of the time frame for each stage?
- ☐ facilities, resources, laboratory equipment and technical help needed?

Referencing

- There must be a section in which all the references cited in your work are listed in an alphabetical order
- Literature citing is the practice of directing a reader to the source of information being used – quoted or paraphrased – in a piece of writing
- **Do not cite materials from Wikipedia!**

Purpose of Referencing

- To acknowledge other people's work or ideas in relation to your own.
- To enable readers to find the source material
- To avoid plagiarism

When References Should Be Used

- When you cite material taken from other sources. These include
  - Materials on paper
    - Papers in professional journals and conferences
    - Books or book chapters
    - Theses
    - Lecture or laboratory documents
    - Magazine articles
    - Newspaper articles
    - An organization's publicity materials
    - Engineering standards and specifications
    - Government documents, such as acts of Parliament and reports of committees
    - etc
  - Electronic source
    - World Wide Web pages
    - Online journal materials
    - Online conference proceedings
    - CD-ROMs and electronic databases
  - Visual and audio materials such as
    - Videos
    - Tapes, CDs
- When you need to quote word for word from another work

The difference between a bibliography and list of references

- A List of References is a list of all the sources that you have cited in the test of your document. It is the preferred section for most graduate technical documents, because:
  - It is the system used in scientific literature such as journal papers
  - It shows that you can integrate your work with that of others
- A Bibliography is a list of all the sources you have consulted while preparing your document, but have not referred to in your text. In a technical document, it is almost never found alone; however it may be used in addition to a List of References. If both are used, a citation should not be listed in both the List of References and the Bibliography
- The List of References – and the Bibliography when needed – are the final sections of your document, coming immediately before the Appendices

The two main systems of referencing

The author – date (Harvard) system	**The numerical system**
In the text of the document • Surname of the author and the date of publication placed in parentheses. For example: (Brown, 1999) • Page numbers of a book can be included. For example: (Smith, 2000, 103-121)	In the test of the document • Each citation in the text is given a unique number, either in square brackets, e.g. [5], or superscripted, e.g. ^{5}. Each is numbered in the order in which it appears in the text • If you need to cite a reference more than once in the text, the number of its first appearance (its unique number) is used each time you cite it
List of References • Listed in alphabetical order of the surnames of the authors	List of References • Not listed alphabetically. It is a list numbered from 1 to n, the number of each listing corresponding to the unique number that each source was assigned in the text.

Citing references in text (Harvard System versus Numerical system)

The author/date (Harvard) System	**The numerical system**
Advantages • Allows the source to be recognised by author and date in context within the text of the report. (Note: this is seen as a considerable advantage by people familiar with the literature). • Provides an alphabetical list at the end of the document • Inserting an extra reference into the text is easy	Advantages • The text of the document is not interrupted by wordy citations. • Only a number needs to be repeated: prevents repetition in the text of the same wordy citations.

Citing references in text (Harvard System versus Numerical system)

The author/date (Harvard) System	**The numerical system**
• Can create disruption to the text when there are many citations in one place	• While reading the text, readers familiar with the literature cannot recognize the work that you are citing. They have to turn to the list of references to match a numerical reference to its source. • It can be difficult to add another citation and renumber all successive ones. But this can be overcome by using the word processor endnoting function or a referencing software package. • The numbers give no information about the work, and it is easy to forget to use the earlier number when you need to refer to it again later in your report. Again, the word processor endnoting function or a reference software package will overcome this

Examples (Harvard System of Citing)

Author's surname and date placed in brackets.	The wind velocity and behaviour of a geographical region is a function of altitude, season and hour of measurement (Johnson, 1985).
Author's surname cited in the text	Miller (1978) showed that glucose and cellobiose are taken up and metabolized to succinate, acetate and small amounts of formate.
References precisely placed.	The runoff has also introduced heavy metals (Lourna, 1974), pesticides (Schultz, 1971), pathogens (Cox, 1969), sediments (Gonzalez, 1971), and rubbish (Dayton, 1990)
The paper cited is by two authors.	The considerations are developed by assuming the general mathematical scheme designed in the case of a single slit (Zecca and Cavelleri, 1997) Martin and Zubek (1993) compiled a comprehensive list of duct activity on Mars from 1983 to 1990.

Examples (Harvard System of Citing)

The paper cited is by more than two authors. Cite the surname of the first author and add 'et al.' (italicised in some house styles).	In the soft X-ray band pass, the solar X-ray flux varies by about one order of magnitude during the solar cycle (Peres *et al.*, 1999) Or Peres et al. (1999) found that in the soft X-ray band pass, the solar X-ray flux varies by about one order of magnitude during the solar cycle.
Several sources are cited within one set of brackets. Depending on house style: separate them by semicolons, and cite them in order of either (1) publication date or (2) by alphabetical order of the author.	The locomotion activity of a given species may be a source of considerable error in estimating energy budgets (Boisclair and Sirois, 1993; Facey and Grossman, 1990; Hansen et al., 1993; Lucas et al., 1993; Ney, 1993; Ware, 1975).

Examples (Harvard System of Citing)

Two or more papers written in different years by the same author.	To develop a mathematically based understanding of cell death dynamics, Wu et al. (1993, 1994) separated the cell death process into two phases.
The author has written several papers in one year. Distinguish between them by adding a lower case letter to each paper. These letters must be added to the listing's date in the List of References.	Previous analysis of the Clock gene in mice (King et al., 1997a,b) has shown that Clock is expressed in a manner consistent. In mice (king et al., 1997b) the CLOCK locus lies distal to …

Examples (Harvard System of Citing)

There is a large body of work, but you are citing only a few representative examples. Use e.g. within brackets.	Martian dust storms, also called Martian yellow storms or Martian yellow clouds, have been observed for a long time (e.g. Antoniadi, 1930; Martin and Zurek, 1993)
Referencing a large body of information contained in a review paper.	Zebrafish generate a large numbers transparent embryos that develop synchronously to a free-swimming hatching in a period of three days (for review, see Driver et al., 1994)
You have been unable to obtain the original reference, but have seen it cited in another paper: • It is acceptable to cite the secondary source provided the primary source is included. • Include full citation details of both references in the List of Refrences.	Smith (1928) as cited by Brown (1999) showed that …

Examples (Harvard System of Citing)

Different authors with the same surname, publishing in the same year	**It has been shown by Smith, C.W. (1996) … whereas Smith, J.G. (1996) …**
Where the publication date of the source is known only approximately: Use a small c before the date	All the branches of a tree at any degree of height, if put together, are equal to the cross-section of its trunk (Leonardo da vinci, c. 1497
Sources where author is not stated. Use the first few words of the title, and the date if known. For example, where the citation is: • Wylie Stream Intake Feasibility Report (1997). James Consultants ltd, contract TKA 97/101. Prepared for Middletown Central Electricity Generation • CORINARIR Working Group on Emissions from road Traffic, 1 (1993). Commission of the European Committees (Office for Official Publications, Luxembourg) • Twintex, TPP fact sheet (undated) Verdex International S.A.	… as shown in a previous study (Wylie Stream Intake, 1997). … in accordance with a previous study (CORINAIR Working Group, 1983). … as specified (Twintex TPP, undated).

Numerical System

• **Each source cited in the text is given a unique number, in the order in which each is cited** • **If you need to cite a reference more than once in the text, the number of its first appearance – its unique number – is used each time you cite it.**	**The wind velocity and behaviour of a geographical region is a function of altitude, season and hour of measurement [1], Mylona [2] has analysed changes in sulphur dioxide and sulphate concentrations in air during the period 1979-1986.** **Or:** **The wind velocity and behaviour of a geographical region is function of altitude, season and hour of measurement[1]. Mylona[2] has analysed changes in sulphur dioxide and sulphate concentrations in air during the period 1979-1986.**

Compiling the list of references

- The aim of a citation in the List of References is to allow the information to be retrieved again. You therefore need to provide the information that will allow your reader to retrieve the material you cite.
- There are minor variations in the way the lists are formatted for different house styles. It is essential to establish the formatting required, and to keep to it rigidly and consistently.
- There are standard abbreviations for the journals. Don’t make them up-refer to one of the standard publications found in libraries.
- Be sure that every full stop or comma is in the right place, and all other aspects of the formatting are correct. Formatting of references is riddled with convention, and assessors often check this area very thoroughly.

Listing the various types of sources- Journal Papers

- Surname and initials of the authors (surname first followed by the initials)
- The year of publication in round brackets ().
- Title of publication
- The name of the journal (in its correctly abbreviated form).
- The volume number of the journal, usually in bold face (with the issue number, if there is one, in brackets)
- The numbers of the pages on which the paper begins and ends

Listing the various types of sources- Journal Papers

Single author	Zizzi, P.A. (1990) Quantum foam and de Sitter-like universe. *Int. J. Theor. Phys.*, **38** (9), 911-918.
Two authors	Rippon, P.J. and Stallard, G.M. (1999) Iteration of a class of hyperbolic meromorphic functions. *Proc. Amer. Math. Soc.,* **127** (11), 3251-3258
Multiple author	Dufton, P.L., McEriean, N.D., Lennon, D.J. and Ryans, R.S.I. (2000) an exploratory non-LTE analysis of B-type super-giants in the small Magelianic cloud. *Astronom. and Astrophys.*, **353** (1), 311-321

Listing the various types of sources- Journal Papers

Paper in the proceedings of a conference. As for journal paper in addition: State the number of the conference, its title theme, the place it was held and the date.	Bhattacharya, B., Egyd, P. and Toussaint, G.T. (1991) Computing the wingspan of a butterfly. Proc. Third Canadian Conference in Computational Geometry (Vancouver), Aug 6-10. pp 88-91.
Paper in language other than English , not translated. Put (in language) at end of citation. The title may remain in the original language, or be translated into English	Muller, R. (1985) Wasserfassungen In Geschiebefuhrenden Flussen. *Wasser-und Energiewirtschaft*, **9**, 11-13 (in German) Gorb, S.N. (1989) Functional morphology of the arrester-system in odonata. *Vestn. Zool*. **1989**, 62-67 (in Russian).

Listing the various types of sources- Books

- Surname and initials of the author(s) or editor(s) (surname first, followed by the initials). If editor, place Ed after the initials.
- The year of publication
- Title of the book (underlined or in italics and with the main words
- If there is a subtitle, it is separated from the main title by a colon (☺
- Title of series, if applicable.
- Volume number or number of volumes, if applicable
- Edition, if other than the first
- Publisher
- Place of publication (city or town)
- Page numbers of the material quoted (if applicable)

Listing the various types of sources- Books

One or more authors	Barrett, C.S. and Massalski, T.B. (1980) *Structure of Metals: Crystallographic Methods, Principles and Data.* Pergamon Press, Oxford
One volume of a multi-volume work	Erdelyi, A. Ed. (1985) *Higher Transcendental Functions.* Vol. 3. McGraw-Hill, New york.
Second or later edition of the book	Komberg, A. and Baker, T.A. (1992) *DNA replication.* Second edition. W.H. Freeman and Co., New York
A chapter or article in an edited book • The chapter title is enclosed in speech marks. • The name of the book is preceeded by In: • Page numbers preceded by pp.	Kahn, R.A. Martin, T.Z., Zurek, R.W. and Lee, S.W. (1992). 'The Martian dust cycle'. In: *Mars.* Eds: H.H. Kieffer, B.M. Jakosky, C.W. Snyder and M.S. Matthews. University of Arizona Press, Tucson, Arizona. Pp. 1017-1053. Thomas, C.J.R. (1993) 'The polymerase chain reaction'. In: *Methods in Plant Biochemistry, Vol. 10: Molecular Biology. Ed: J. Bryant, Academic Press, London. Pp. 117-140.*

Listing the various types of sources- Other types of sources

Thesis	Johnson, C.E. (200) A Study of Residual Stresses in Titanium Metal Matrix Composites. PhD Thesis, University of Middletown.
Student Project	Bridges, A. J. (1999) Mathematical modeling of land-mine detection. Engineering Science Project, School of Engineering, The University of Middletown.
Lecture material	If the writer's name is stated: Carter, R. (1996) Robotics. Lecture handout, *Engineering and Society,* The University of Middletown. If the writer is unknown: Wetlands (1996). Lecture handout, *Conservation Ecology,* The University of Middletown.
Laboratory manual	Strain measurement (1998). Year Two Mechanical Engineering Laboratory Manual, The University of Middletown, 46-49.
Newspaper article	Author is known: Nicholson-Lord, D. (1995) Does work make you stupid? *Independent on Sunday*, 29 January, p. 21. Author unknown: Could alcohol be good for your liver? *The Week*, 13 November 1999.

Listing the various types of sources- Other types of sources

Magazine article	Author is known: Crystal, D. (1999) The Death of language. *Prospect,* November 1999. Author is unknown: Shades of green (1998). *Consumer,* Number 344, 21-24
Technical report	Hilley, M.E. Ed. (1971) Residual Stress Measurement by X-Ray Diffraction. SAE Information Report J784a, Society of Automotive Engineers, New York.
Morofiche	Buckley, D.H. (1985) Tribological Properties of Structural Ceramics. NASA, Washington DC. Microfiche.
Government and legal documents: • The first element of information is the government department, committee or body. The last two may also be referenced by the name of the chairperson. • Include the complete title.	CORINAIR Working Group on Emission Factors for Calculating 1990 Emissions from Road Traffic, 1 (1993). Commission of the European Committees (Office for Official Publications, Luxembourg).

Listing the various types of sources- Other types of sources

Section of an Act of Parliament	**Risk assessment and notification requirements (1990) Environment Protection Act 1990 (c. 43), Part VI – Genetically Modified Organisms, Section 108, Act of Parliament, United Kingdom. Her Majesty's Stationery Office, London**
Report by a professional body	Recycling Household Waste – The Way ahead (1991). Association of Municipal Engineers, The Institution of Civil Engineers, London.
Engineering code	Building Code Requirements for Reinforced Concrete and Commentary (1989). ACI Committee 318, American Concrete Institute, Detroit.
Standard specification	Standard Specification for Urea-Formaldehyde Molding Compounds (1994). Designation D705-94. American Society for the Testing of Materials, annual Book of ASTM Standards 1999. 08.01 *Plastics (I),* 92-93.

Listing the various types of sources- Other types of sources

Standard test method	Standard Test Methods for Thermoplastic Insulations and Jackets for Wire and Cable (1996). Designation D2633-96. American Society for the Testing of Materials, Annual Book of ASTM Standards, 1998, 10.02 *Electrical Insulation (II),* 25-38.
Standard practice	Standard Practice for Algai Growth Potential testing with *Selenastrum capricomutum* (1993). Designation D-3978-80 (Reapproved 1993). American Society for the testing of Materials, annual Book of ASTM Standards 1997. **11.05, *Biological Effects and Environmental Fate; Biotechnology; Pesticides,* 29-33**
Patent	Kuhn, K.J., Wehner, W., Zinke, H. (2000) Stabilizer combination for chlorine-containing polymers. US Patent number 6 013 703.
Map	Swansea and The gower (1974) Ordnance Survey Sheet 159, 1:50 000, Frist Series. Director General of the Ordnance Survey, Southampton.

Listing the various types of sources- Other types of sources

Consulting report Include name of consulting firm, contract number and for whom the report was prepared	Wylie Stream Intake Feasibility Report (1997). James Consultants Ltd, Contract TKA 99/136. Prepared for Middletown central Electricity Generation.
Undated documents Put (undated) where the date is normally placed	Predicting Traffic Accidents from Roadway Elements on Urban Extensions of State Highways (undated). Bulletin 208, New Zealand Highway Research Board.
Fact/data sheet: no author, undated	Twintex TPP fact sheet (undated), Verdex International S.A.
CD article; video or audio cassette State whether a CD, or video or audio cassette	*Radio Frequency and Wavelength Ranges* (1999) Microsoft Encarta. CD The Life of Plants (1995). BBC Natural History Unit production. Video Cassette

Listing the various types of sources- Electronic Sources

WWW page
If authored, author's name is the first item. Otherwise:

- Title of the web page (in italics)
- If it's a homepage: Homepage of . . . (in square brackets). If not a homepage, leave it out
- Last update or copyright date (in round brackets)
- Online (in square brackets)
- Available:
- URL
- The date you accessed it (in square brackets)

Sports Wheelchairs (1999, 7 May – last update). [Online]. Available: *www.mobilityproducts.com/sprt-whl.htm* [1999, September 9]

Composites Manufacturing Technology (Penn State University) (1999, June 17 – last update). [Online]. Available: *http://esmnac8.esm.psu.edu/html/s/deptinfo/cmtc/cmtc.html* [1999, September 8]

A paper from online conference proceedings
Author
Year (in round brackets).
Paper title.
In: Proceedings title
Online (in square brackets)
Volume and issue number
Paging or length (if given)
Available:
Address/Path/File
Access date (in square brackets)

Silberberg, D.P. and Semmel, R.D. (1994). The Starview flexible query mechanism. In *Astronomical Data Analysis Software and Systems III ASP Conference Series* [Online], **61**. Available: *http://cadwww.dao.nrc.ca/ADASS/adass_proc/adass3/papers/silberbergd/silberbergd.html* [1999, August 25]

Listing the various types of sources- Electronic Sources

Online journal article

Ansari, A. (1999) *Langevin modes of analysis of myoglobin*. Journal of Chemical Physics [Online serial], **110** (3). Available: *http://ojps.aip.org/journals/doc/JCPSA6-ft/vol_110/iss_3/1774_1-div0.html* [1999, Dec. 15].

Abstracts from databases
Include the database and the identification number of the citation.

- Conference proceedings

Fukuda, T. and Kubota, N. (1998) Intelligent robotic systems – from a single robot to multiple robotic system. International Workshop on Advanced Motion Control, July 1998, [Online]. Available: Compendex Web/2361990 [2000, February 9]

- Journal article

Novara, M., Putz, P., Marechal, L., Losito, S. (1998) Robotics for lunar surface exploration. Robotics and Autonomous Systems, **23**, (11–2), 53–63, March 1998, [Online]. Available: Compendex Web/2650548 [2000, February 8]

Listing the various types of sources- Electronic Sources

Personal email

Because these are personal communications and cannot be readily retrieved by the general public, most authorities believe that no entry should appear in the List of References.

Instead, either

(a) acknowledge it in the text in round brackets

or

(b) as a pers. comm. (see 'Personal Communications', page ???).

(a) The medium was maintained at a *p*H of 6.4 (H.R. Jones, email to author, April 1, 2000).

or

(b) The medium was maintained at a *p*H of 6.4 (H.R. Jones, pers. comm.)

Listing the various types of sources- Electronic Sources

A discussion list
Treat a discussion list message as an email (see previous entry) or list it as follows:

For a real-time message or discussion:
Author
Date (Year, Month, Day)
Subject of message or discussion
Name of Discussion List (in italics)
Online (in square brackets)
Available email:
NAME OF DISCUSSION
LIST@email address
Access date (in square brackets)

Atkins, A.G. (2000, February 2) Parchment. *Biomimetics Discussion List* [Online]. Available email: BIOMIMETICS@mailbase.ac.uk [2000, February 8]

Types of Reports

- Dissertations
- Articles for publication
- Project proposals
- Progress reports
- Feasibility reports
- Design reports
- Tender reports
- Operation and maintenance manuals
- Environmental impact assessment reports
- Environmental audit reports

Dissertations (Thesis)

- A dissertation is a written document embodying results of original research with a view to advancing a position or proposition or substantiating a specific view.
- Also often referred to as thesis
- The main elements are prefatory (title page, abstract , table of contents, etc) introduction, literature review, methodology (or experimental procedure, or simply, procedure), results and discussion, conclusion and recommendation, reference, appendices (if any)

Progress reports

- Reports to an outside organisation or funding body to show the progress of your research, in relation to your original research proposal. It essentially serves the following purposes:
  - To show to the organization that their money is being well spent and they will eventually reap benefit from your work
  - To give them a report that they can understand in their own terms
  - That your work is progressing along the lines of your original proposal
  - That your results are valid and non-trivial
  - Possibly that your work id opening up into other directions that will be of benefit to the organization
- The main elements are prefatory, and in addition to regulars section detailing updated project plan and expected time frame for the remaining activities, and requirements for the next stage

Articles for publication

- The author of a thesis may decide to publish the work. A person who has conducted an original research may decide to publish the results. The works are written out as articles for publication in a journal
- The main elements take the form AIMRAD
- Most reputable journals would give ‘Guides to Authors’.

Project proposal

- Project proposals are written to put forward comprehensive suggestions for consideration. A proposal could also be prepared by a candidate for a higher academic degree such as a Ph.D. degree prior to conducting the research
- A proposal for a development project study and/or design should contain four main sections: Introduction; Proposed method of work; Cost estimates; Facilities, personnel and work plan
- For academic proposal four main sections namely: Introduction; Literature review; Proposed methodology; Expected contribution to knowledge and stage reached, should be in the report in addition to prefatory and references.

Feasibility reports

- Following acceptance of a project proposal, the client may order a feasibility study.
- Such a report must show a clear understanding and expression of the problem (Introduction), consideration of alternatives (Methodology), and making a decision based on correct analysis (Conclusions and recommendations)

Design reports

- When a decision has been taken to proceed with a project after a feasibility study has been carried out, the next stage is design .
- A detailed design consists of detailed analysis, computation, drawing of plans, profiles and sections of the various units in the system separately and together
- Such report must contain and introduction and the presentation of working drawings, bill of quantities, specifications and forms of tender and of contract

Tender reports

- Following the production of tender documents (drawings, BOQ. Specifications, forms), contractors are invited to collect the documents, prepare the bids and submit tenders
- After the deadline date for submission of bids, the authorized body meets and formally opens all the tenders.
- After a careful study, all the tenders are then tabulated and discussed in a written report
- The report generally consists of introduction, method of assessment and analysis and a recommendation which is usually a ranking of the contractors.
- The report is then submitted to the tenders board for the award of the contract

Operation and maintenance manuals

- When a construction work has been completed and put in use for some time it is necessary for the consultant in charge of the work to prepare and submit to the client an operations and maintenance manual
- The element of the manual should include the introduction, plant or building description (with as-build-drawings), systems operating procedure, maintenance work and schedule etc

Environmental impact assessment reports

- A Environmental Impact Assessment (EIA) is mainly concerned with the expected negative impact of a project (construction of dam, highway etc) on the human, ecological and physical environment
- Negative impacts could be in form of displacement of humans from their villages, loss of crop lands, introduction of new pests and diseases, increasing the concentration of suspended particulates in air etc
- The main elements of EIA reports are introduction, project description, method of baseline data collection, results, conclusions and recommendations

Environmental audit reports

- An environmental audit is a study carried out to determine if and to what extent an existing outfit (municipal, commercial, institutional or industrial) is impacting negatively on the environment
- EIA is conducted prior to the construction and commissioning of a developmental project while environmental audit is carried out on an already existing one.
- Again the audit report should contain introduction, methodology, results, conclusions and recommendations

Typical Guideline for writing EIA Reports

Table of Contents

List of Tables

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List of Acronyms

EIA Preparers

Executive Summary

Acknowledgements

1.0 INTRODUCTION

- 1.1 Background to the Proposed Project
- 1.2 Legal Framework
- 1.3 Objectives

2.0 PROJECT JUSTIFICATION

- 2.1 Need for the Project
- 2.2 Envisaged sustainability etc

Typical Guideline for writing EIA Reports Contd.

3. PROJECT DESCRIPTION
   - 3.1 Overview
   - 3.2 Project Location
   - 3.3 Plant Input and Output
   - 3.4 Technical Layout etc

4.0 DESCRIPTION OF THE EXISTING ENVIRONMENT
   - 4.1 Study Approach
   - 4.2 Geographical Location
   - 4.3 Climatic Conditions
   - 4.4 Types of Studies
   - 4.5 Methodology of Baseline Data Acquisition
   - 4.6 Results and Discussions
     - 4.6.1 Air Quality
     - 4.6.2 Water Quality etc

5.0 EXPECTED IMPACTS

6.0 IMPACT MITIGATION MEASURES

7.0 ENVIRONMENTAL MANAGEMENT PLAN

8.0 REMEDIATION PLAN AFTER THECOMMISSIONING

REFERENCES

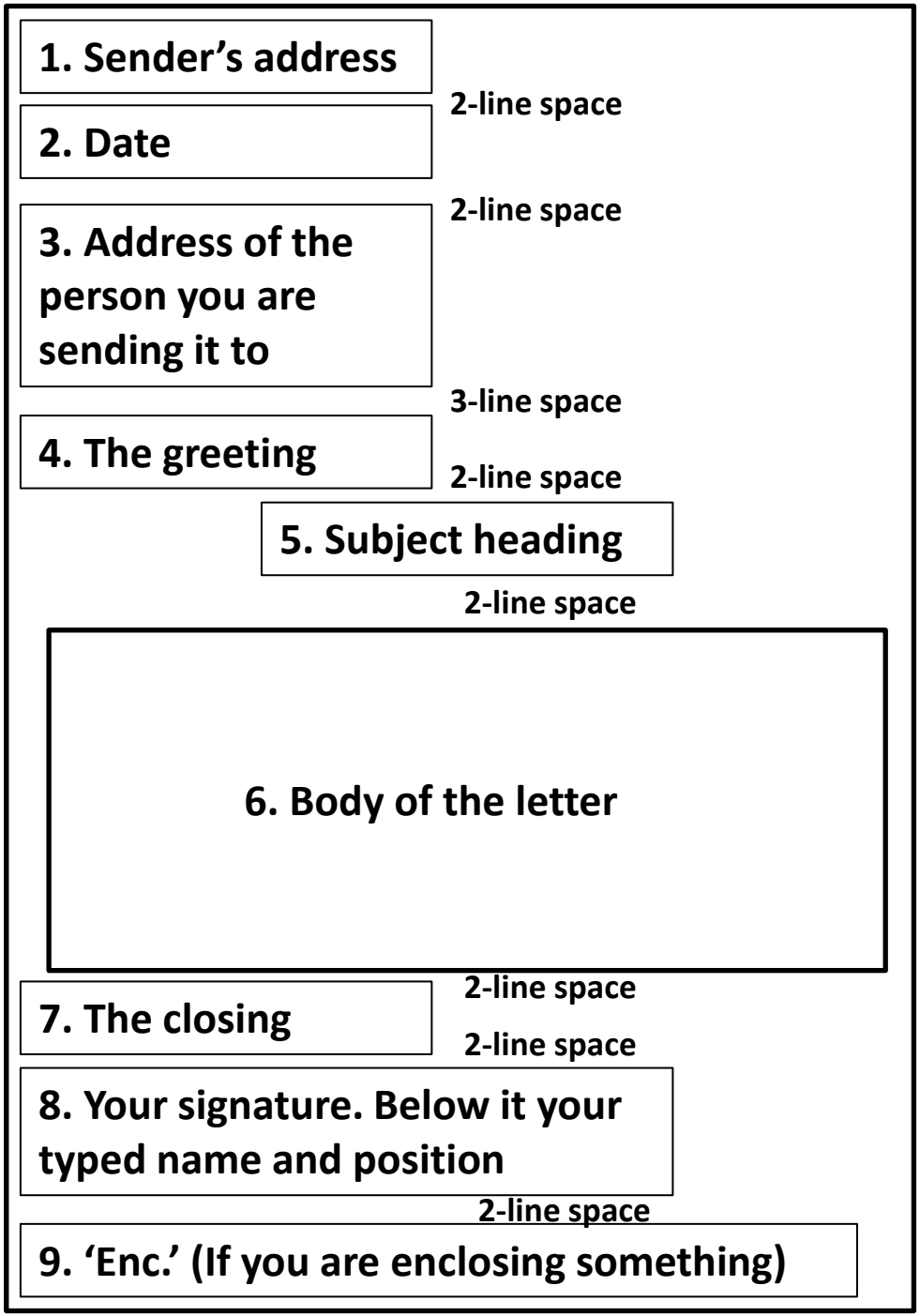
APPENDICES

Communications within and between companies - Letters

- Most business or professional letter papers have printed headings showing the name of the company, firm or individual, the address, telephone number, telex number, e-mail, etc. Other items commonly printed on letterhead include reference number notations and a space designated for date (‘Our Ref. …’, ‘Your Ref. …’, ‘Date …)

Communications within and between companies - Letters

- The parts of a formal letter (all left justified, except for the subject heading):
  - Your address (or letterhead) - 2-line space
  - The date - 2-line space
  - Name and address of the person you are writing to - 3-line space
  - The greeting (salutation - 2-line space
  - The subject heading - 2-line space
  - The body of the letter - 2-line space
  - The closing – Leave a 6/8-line space for your signature
  - Your written signature with your typed name and position below it - 2-line space
  - The letters ‘Enc.’ if you are enclosing additional documentation with the letter


1. Sender's address
2-line space
2. Date
2-line space
3. Address of the person you are sending it to
3-line space
4. The greeting
2-line space
5. Subject heading
2-line space
6. Body of the letter
2-line space
7. The closing
2-line space
8. Your signature. Below it your typed name and position
2-line space
9. 'Enc.' (If you are enclosing something)

Communications within and between companies - Letters

1. Your address or institution's address (or letterhead)
   - Left justified
   - It is now no longer the convention to put comma at the end of each line
   - If you are using letterhead paper, an address is not needed
2. The Date
   - Use the format : Day (in figures) Month (written out) Year (in figures) No commas i.e. 18 November 2013 (18th November 2013 and November 18, 2013 are going out of fashion. 18/11/01 – incorrect, different countries use different formats when using only figures, it can cause confusion)
3. Name and mailing address of the person you are writing to
   - Left justified, commas not needed at the end of each line
4. The greeting (salutation). According to the tone of the letter choose from:

   - Dear Sir or Dear Madam (when you don't know the family name of the person)
   - Dear Sir/Madam (when you don't know the family name or gender of the person)
   - Dear Mr Surname; Dear Mrs surname; Dear Ms surname (when you don't know the marital status of the woman; Dear Dr surname; or Dear Prof surname
   - Dear first name (when you are on familiar terms with the person you are writing to

Communications within and between companies - Letters

5. The subject heading (title)
   - A concise title, two lines below the greeting, centred, boldfaced for emphasis and should give the reader instant access to the main point of the letter
   - Don't use Re: before the title, it's meaningless and old fashioned
   - Don't underline – this is old fashioned. Use boldface
6. The body – structure of information
7. The closing
   - If you have used Dear Sir, Dear Madame, Dear Sir/Madam, you must use Yours faithfully as the closing
   - If you have the surname in the salutation, you must use Yours sincerely as the closing
   - If the letter is not strictly formal, the tone of the letter can be softened by using Regards or Kind regards or Best wished, either before closing or alone

Communications within and between companies - Letters

8. Your written signature. Below it, your typed name and position.
   - After the closing leave about eight blank lines for your written signature
   - The (left justified) your name. Use full first name and surname (e.g. Oluwaseyi OKE) not initials and surname. This conveys to the reader your gender – making you easier to contact – the sense of a real person behind the letter.
9. The letters Encl. If you are enclosing additional documentation with the letter

Composites Laboratory
School of Engineering
University of Middletown
PO Box 123
Middletown

8 October 2001

Dr Lesley Green
Director, Research and Development
Composites Construction Ltd
Middletown.

Dear Dr Green,

Research Seminar to the Board of Directors

Body of the letter

Yours sincerely,

Pat Black (Dr)
Isaac Newton Research Fellow, Composites Development

Emails and Memos

- Emails, faxes and memos together with letters form an important part of the essential paper-trail that accompanies work in scientific and technological fields

Emails

- The electronic mail (e-mail) has been the most commonly used among the myriads of Internet services
- It is use in one to one or one to many communications
- Two basic parts of an e-mail are a header and the body of the message
- When the message is being composed, most brief headers are displayed as follows:

  To:

  Cc:

  Bcc:

  Subject:

  Attachment:

  “To”, “Cc” (carbon copy) and “Bcc” (blind carbon copy) are filled with addresses, Subject field contains the appropriate title for the message and “Attachment” field is often a hyperlink which is activated by clicking it if there is any attachment to the message

  The email address of the sender, the day, date and time of the message are automatically added to the composed mail when it is ‘sent’.

Emails

- When using emails, take note of the following:
  - Style of writing
    - Take as much care writing an email as you would in writing a letter
    - Don't use the pop conventions of the email culture (u instead of you)
    - Structure the content of you message in the same way as you would a letter
  - Confidentiality – assume that mail travelling via Internet is not confidential
  - Permanence – don't regard you files in safe keeping, print out important documents
  - Commercial sensitivity – don't send commercially sensitive document by email
  - Contractual material – avoid using email for contractual material unless it is followed by hard copies
  - Attachments
    - Scan before you download, check the size of file attachments before you send
  - Unnecessary messages – don't send unnecessary messages particularly when forwarding material to large groups
  - Content of auto signature – must contain your name, address phone and fax numbers

Memos

- A memo (memorandum) is a very short document usually up to a page long. It is popularly used for Internal communication within an organisation
- The informality of a memo is reflected in the facts that there is no salutation and no complimentary close
- It's an adaptation of a business letter, now being rapidly superseded by email for short messages that are less formal than a letter
- A memo is headed by the word MEMORANDUM and followed by the side-headings:
  - To:
  - C:
  - From:
  - Date:
  - Ref.:

  Followed either by the side-heading Subject: or (in a longer memo) a centred title, the message proper, signature, distribution list, enclosure

Memos

MEMORANDUM

To: Dr Peter Brown, Department of Mechanical Engineering

c: Prof. Jennifer Green, Head of Department, Mechanical Engineering

From: Pat Black

Date: 8 October 2001

Subject: My visit to Composites Construction Ltd

This is to let you know that from 14 to 17 November I shall be visiting the research labs at Composites Construction Ltd in Middletown.

As we previously discussed, my main activity will be to discuss the progress of our joint research programme, our proposals for future development and the next round of funding.

I look forward to discussing the visit with you on my return.