

UNIVERSITY OF
WATERLOO

Faculty of Engineering
Department of Management Sciences

Guidelines for
Management Sciences Co-op Work Term Reports
- Graduate Studies

Version 3

April 26, 2016

This version of the guidelines supersedes all prior versions.
It applies to all work reports submitted after May 1, 2016.

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1 Overview

Effective communication is an important asset to a practicing engineer. You must be prepared to collect information, properly organize it, and present it in a logical and concise manner. These skills are especially important to you as a future management engineer because you may be involved in a wide variety of industries and interact with people who possess varying degrees of understanding related to your work. The work term report is an opportunity for you to practise your skills of analysis, calculation, presentation, argument, judgment, and evaluation.

This document provides background information and details pertaining to work term report handling procedures. In addition, these guidelines convey the structure and formatting rules that you are expected to follow when writing your report. This style guide ensures uniformity across all Management Engineering work reports and trains students with a report format that is commonly applied in the industry.

1.1 Submission & Deadlines

To be eligible for the Co-op designation, students must complete a minimum of two satisfactory work reports. Students must submit both a hard copy and soft copy of the co-op work term report to the Graduate Studies Administrative Coordinator no later than 4PM on the 10th day of classes in the academic term following the co-op work term for which the report was prepared. If a student is unable to submit his or her work term report by the 10th day of classes, a request for an extension, with reasons provided for such special consideration, can be requested. Decisions related to such requests will be made by the Associate Chair of Graduate Studies. Graded work term reports will normally be returned to students by the 40th day of classes. If a student is required to resubmit his/her report, he/she must do so by the last day of classes.

The content of your two work term reports must be significantly different. This is especially true for students on an 8-month co-op placement with the same employer. It is acceptable for your second work term report to be a continuation of your first report, but you must clearly demonstrate the substantial improvement that you have made since your first report.

Plagiarism detection software (Turnitin) will be used to screen work reports. This is being done to verify that use of all materials and sources is documented. If students do not want to have their report screened by Turnitin, they must communicate this in writing to the Associate Chair of Graduate Studies, one week before the deadline date. As well, students who do not have their report screened by Turnitin will be required to submit an annotated bibliography along with their work term report (both the bound and electronic versions).

1.2 Confidential Reports

Work term reports should not contain information considered confidential by the employer. However, if it is not possible to write a report without breaching confidentiality, then a confidential report is acceptable. The employer should give permission for the report to be evaluated by the instructor or a

faculty member (usually the Associate Chair of Graduate Studies). A form is available for both the employer and the grader to sign in agreement of confidentiality. It is recommended that you discuss your report requirements with your employer to avoid any surprises. An employer may mark a confidential work report if he/she is a licensed Professional Engineer. The employer would then fill out the confidentiality agreement form, which should be presented to the Graduate Studies Administrative Coordinator along with the evaluation form.

1.3 Plagiarism

Plagiarism is a serious form of infringement. In short, it is the copying of words and ideas from others without giving proper credit. If you quote, paraphrase, or copy from another source without referencing, then you are implying that the work is yours. Plagiarism also occurs if you refer incompletely to a work, e.g., when the source of the first quote is fully identified, but subsequent quotes from the same source are not identified.

Plagiarism is punished severely in the university environment. Students are expected to know what constitutes academic integrity, to avoid committing academic offences, and to take responsibility for their actions. Students who are unsure whether an action constitutes an offence, or who need help in learning how to avoid offences (e.g., plagiarism, cheating) or about "rules" for group work/collaboration should seek guidance from a department official, academic advisor, or the Associate Dean Undergraduate Studies. For information on categories of offences and types of penalties, students should refer to Policy #71, Student Academic Discipline (1). Students who believe that they have been wrongfully or unjustly penalized should refer to Policy #70, Student Grievance (2).

2 Content

You should choose a topic that is relevant to your studies and work, manageable in scope, and analytical in nature. This entails formulating the problem and applying appropriate engineering analysis, insight, and judgement to draw reasoned conclusions and make recommendations.

A work report should document how you solved a Management Engineering problem encountered on a work term. Your report must not read like a manual or be a summary of what you did over the work term. It must, at the very least, contain evidence of decision-making and judgements made by you.

2.1 Suggestions for Finding a Topic

Choosing a suitable work report topic can be the most difficult part of the work report, especially if it is your first. You should start thinking about a topic early in your co-op term and discuss potential topics with your supervisor or mentor. In some instances, you may find yourself working on a project that lends itself quite easily to a work term report and you can request to follow up on it. In other instances, discussing potential topics with your supervisor may start you on an interesting and rewarding project.

The most important part of selecting a topic is making sure it has enough analysis. For example, you could write about a comparison study, the development of a mathematical model, design of a product/software, improvement/optimisation of a problem, prediction of future market trends, etc. An analytical report contains constructive criticism and error analysis and compares and evaluates *several* items or alternatives using various criteria. Sometimes a report on a single topic can be analytic if it discusses advantages and disadvantages. Generally, a topic based on the project management aspect of a project does not do well since it reads like a diary of what you did during the work term.

Some examples of topics of work reports submitted by Management Engineering students in recent years are given below:

1. Identification and comparison of multiple software alternatives to best meet requirements for a new document control system.
2. Evaluation and comparison of multiple methods for reducing changeover times in a manufacturing line.
3. Analysis and design of a software package to improve call routing in a call centre.
4. Analysis and design of an online quotation tool.

When composing your work report, you may want to consider yourself a consultant tasked to solve a problem. First, you must define the problem. Ask yourself what you are trying to do. Identify the needs of the company for the project (e.g., who will use the product, what is the budget, how big can the solution be, etc.). If it is to come up with a design, what does it have to do? How will you know if it is a good design? How is the company going to evaluate your design? If it is a comparison, ask yourself what is the

comparison for? How do the alternatives being compared fit within their application? By what criteria should they be judged?

In essence, before you begin your analysis, *define your problem well*. This includes, most importantly, what your recommendations will be judged against; everything else will follow.

2.2 Audience

Generally, the manner in which a report is written depends on the audience. For example, a report directed at the vice-president of an organization is written differently from a report directed at a co-worker in a specialized field. Your report may be widely circulated: fellow employees and supervisors, as well as the field co-coordinator and faculty members, may read it. Regardless of your report's target audience, the structure and organization must convey the meaning you intend.

The work term report you submit should be directed at a level that would be understood by large audience that is only slightly familiar with your work.

3 Structure

This chapter describes how your report should be sectioned; order the sections as they are presented here. Each section should begin on a new page unless otherwise directed. If you are unsure about something, use your best judgment.

3.1 Front Matter

The front matter precedes your report content and introduces the report. It consists of the following parts (none of which contain a number in the section heading):

3.1.1 Cover (Optional)

This page is not required if your report is bound with a clear cover (typical); omit and start with the Title Page.

The *Cover Page* must include:

- University logo (i.e. from the Waterloo Positioning Guide (3))
- Faculty name (i.e. “Faculty of Engineering”)
- Department name (i.e. “Department of Management Sciences”)
- Title of your report
- The word "Confidential", if it is a confidential report
- Your name

Choose the font (Arial, Calibri, Cambria, or Times New Roman) and size at your discretion. Other items may be included if they add to the professionalism of the report. A sample is shown in Appendix A – Sample Cover Page.

3.1.2 Title Page

The *Title Page* must contain all of the following:

- University logo (i.e. from the Waterloo Positioning Guide (3))
- Faculty name (i.e. “Faculty of Engineering”)
- Department name (i.e. “Department of Management Sciences”)
- Title of your report
- The word "Confidential", if it is a confidential report
- Employer’s name and address
- Your name
- Your UW ID number
- Your previous academic term number
- The completion date of the report
(The date you finished the report, not the submission date)

The title page is considered the first page of your report; however, the page number should not be shown.

Choose the font (Arial, Calibri, Cambria, or Times New Roman) and size at your discretion. Other items may be included if they add to the professionalism of the report. A sample is shown in Appendix B – Sample Title Page

3.1.3 Letter of Submittal

It should be in standard business letter format, as per the following guidelines:

- One page, *single-spaced*.
- Your name and address, a line break, and the submission date (This may be different than the completion date).
- Name and address of the *Chair* of the Department of Management Science (This can be found here (4)).
- Salutation: “Dear *insert Chair’s name*”
- The body of the letter, containing the following items:
 1. Report title
 2. Work report number (i.e. 1st or 2nd)
 3. Previous academic term completed
 4. A statement that the report is "confidential" if a confidential report
 5. Name of employer
 6. Department(s) worked for
 7. Employer/department activity
 8. Purpose of the report
 9. Acknowledgement of assistance received in the preparation of the report
 10. The following declaration statement (as is):

“I hereby confirm that I have received no further help other than what is mentioned above in writing this report. I also confirm this report, in whole or in part, has not been previously submitted for academic credit at this or any other academic institution.”
- Closing salutation, e.g., “Sincerely”, your signature, and your (typed) full name underneath.
- Your UW ID number below your name.

The letter of submittal is counted as page ii; however, like the title page, its page number is not shown. A sample is given in Appendix C – Sample Letter of Submittal.

3.1.4 Contributions

This is a one to two page section, written in the first person, which clearly identifies the student's contribution to the work. The primary purpose of this section is to permit the reader to evaluate the student's involvement in the work and the student's understanding of how their work relates to the team's goals. It is not the intent to mark the level of contribution. This section includes the following information (typically a paragraph for each):

- The size of the team working on the entire project
- The team's main goal(s)
- Student's task(s)
- How the work described in the report is related to the student's work term job

- How the work described in the report fits into the company's broader scheme of things

3.1.5 Acknowledgements (Optional)

Written in the first person, this section can be used to acknowledge (thank) any contributions that were made to your report by persons other than yourself (i.e. your supervisor, co-workers, members of your project team, etc.). It should be written formally and be no longer than one page in length.

3.1.6 Summary

This is a one page executive summary (written for a non-technical audience) which communicates the purpose and scope of the report, the major points in the report, highlights of the conclusions, and highlights of the recommendations. The summary does not describe the report; it is a condensed version of the report in a few paragraphs. It should answer the questions, “what is the problem?”, “how can it be solved?”, and “what should be done about it?” Saying that recommendations and conclusions were made is not specific enough; you need to say what are the recommendations and conclusions. The summary should be written after you have completed the rest of the report and should be able to stand alone. However, this does not mean that conclusions and recommendations are simply restated.

The following format is recommended:

(Hint: if the summary cannot be written in this format, you may not have sufficient technical content.)

- Paragraph one: Purpose of the report and scope of the report
- Paragraph two: Specific major points
- Paragraph three: Major conclusions
- Paragraph four: Major recommendations

3.1.7 Table of Contents

It should contain entries for each report body section and subsection, as well as all of the front matter and back matter, excluding the following:

- Cover Page
- Title Page
- Letter of Submittal
- Table of Contents

(Hint: you may automatically generate a Table of Contents. In Word 2007 and 2010, this option can be found under the *References* tab.)

Note that none of the front and back matter sections should have numbered headings. A sample is shown in Appendix D – Sample Table of Contents.

3.1.8 List of Figures

It should appear on a separate page and contain entries for all figures in the *main body* and *appendices* of the report. A sample is shown in Appendix E – Sample List of Figures

3.1.9 List of Tables

It should appear on a separate page and contain entries for all tables in the *main body* and *appendices* of the report.

3.2 Body

The report body should be between 10 to 15 pages in length (not including tables and figures). You are expected to have at least one table and/or one figure in your report. Having no figures or tables may be an indicator that your report contains insufficient analysis. On the other hand, to keep the body concise you should place any detailed technical content (such as calculations, code, figures, and tables) that are indirectly related to your work in the appendix (but be sure to refer to them in the body).

You may structure your report content as you see fit by organizing the report into sections using a clear and consistent system of headings. However, a report should start with an introduction, which defines the problem or project. Your objectives should be written clearly and concisely. This is typically followed by relevant background information to help the reader understand why your report was written and how it relates to similar work. The introduction should deliver a sufficient impact to encourage continued reading. The next sections would contain the main discussion/analysis. The main section analyses the problem, then summarises and explains your findings. Conclusions and recommendations would then come after the main body.

Keep the following points in mind when putting together your report:

Structure and Flow: Your topic should be clearly introduced and the problem thoroughly defined. Conclusions and recommendations should be made *throughout* the report body; the *Summary*, *Conclusions*, and *Recommendations* sections should merely restate them.

Use appropriately titled sections to guide the reader through your report, e.g., introduction, problem, units of analysis, etc.). Complex or unrelated details should be described in figures or tables or put in the glossary, appendices, or cited references.

Detailed Presentation: Your descriptions and explanations should be clear, concise, and direct. Paragraph and sentence structures should be appropriate to a student at your level. Use standard techniques (such as those described in this document) to refer to mathematics, figures, tables, code fragments, appendices, glossaries, references, etc., and be sure to define all acronyms and technical jargon.

Writing and Formatting: Correct spelling and grammar are expected (hint: it never hurts to get someone else to proofread!). Format your work report in a visually pleasing way that is consistent with the guidelines presented in this document.

3.2.1 Conclusions

The *Conclusions* section should clearly state what conclusions were drawn from the engineering analysis in the body of the report. They should be roughly one page long, to the point, and only state conclusions that are based on information already mentioned in the body of the report. Although the conclusions should be brief, they should be complete and understandable. Each paragraph should deal with only one aspect of the report. Three or more conclusions are expected.

3.2.2 Recommendations

The *Recommendations* section (preferably one page) should clearly state what the recommendations (i.e. allocation of capital, human resources, future improvements, areas of future study) to your employer or manager are to address the problem analyzed in your report. Recommendations should follow logically from your analysis and conclusions and should be specific, measurable, and attainable. Two or more recommendations are expected.

(Hint: A conclusion may state that “A is better than B”. A recommendation would state to “choose A”.)

3.3 End Matter

The end matter should include the following in the specified order. (Note that the glossary and appendices may not be needed for every report.)

3.3.1 Glossary (Optional)

You may optionally include a glossary if your report contains a significant amount of acronyms and/or special technical terms. If you have only the occasional term in your report, it should be defined as part of the text. Items should be listed alphabetically. If containing references, place as footnotes. Otherwise, use your discretion when formatting.

3.3.2 References

References and citations have many purposes:

- To recognize/cite sources of material used in your report (e.g., quotations, paraphrases, and technical data).
- To add credibility, by showing that you have built your analysis on a solid foundation of work by others.
- To direct the reader to sources where they can find more information, should they wish to follow up on your report recommendations or get a better understanding of a concepts therein.

Consequently, it is expected that references be used freely throughout your report. An acceptable work report should contain at least 3 references. References that are not accessible by the marker (such as personal communications, restricted access web sites, etc.) are not acceptable. As an alternative, you may include a copy of it as an appendix, provided it is less than 10 pages. Do not try to impress the reader by listing publications that you have not used. If you use personal conversations as a source, provide a detailed summary of the conversation in the appendix and list the participants’ positions and the conversation’s theme, time, and place.

For your work reports, you may choose to use *one* of the following citation styles:

- Harvard Citation Style (6)
- IEEE Citation Style (7)

When referring to citations in-text, the Harvard style uses a (author, year) style whereas IEEE style uses a [number]. References (in the references section) are also arranged and ordered differently: Harvard lists

references alphabetically by last name and year, whereas IEEE lists references numerically in the order of appearance. It is your responsibility to research the style which you choose to use.

Note: Wikipedia references, or similar, are generally not acceptable (due to issues in veracity and authorship.) Exceptions are made for images and photos. Students looking for references to general information/concepts are advised to refer to textbooks or the library.

3.3.3 Appendices

You may optionally include appendices if any material, e.g., figures, tables, calculations, or references, which do not relate directly to your report's contents or are too lengthy to include in the main body. You may also wish to include any standard technical material or indirectly related statistics that are necessary to supplement your report in appendices.

The title of your appendices should be lettered, as in the following example: "Appendix A: Material Title"

4 Formatting

Technical reports should be formatted according to the conventions and/or guidelines used by your target audience (for whom the report is written). Generally speaking, these guidelines/conventions are designed for consistency and will assist you in communicating clearly your points to the reader.

In this section, you will find guidelines for formatting work reports specific to Management Engineering.

4.1 Font

Body text should be black, 11pt (size), and in Arial, Times New Roman, or Calibri (font). Text styles for other uses are given below:

- *Cover and Title Page* Use appropriate font styles, at your discretion.
- *Table of Contents* Same as body text.
- *Section Headings* Use 20pt font size.
- *Figures* You may select appropriate font styles at your discretion. If using imported figures, text should be readable.
- *Tables* Same as body text, wherever possible; however, you may use other font styles if it isn't suitable.
- *Figure Captions* Use 10pt font size.
- *Table Captions* Use 10pt font size.

4.2 Line Spacing

Use 1.5 times spacing for the entire report, except as noted below:

- *Cover and Title Page* Use your discretion
- *Letter of Submittal* Single spaced

4.3 Margins

Reports should be printed single-sided. Each page should have 0.75" (1.9 cm) margins on the top, right and bottom, and 1" (2.54 cm) margins on the left (to accommodate binding).

4.4 Page Numbering

Page numbering style differs according to each of the three parts of your report, as per the guidelines given below. (Hint: To achieve this in Word 2007 or Word 2010, insert a *Section Break->Next Page*, which can be found under the *Page Layout* tab.)

4.4.1 Front Matter

Use Roman numerals (e.g., iii, iv, v, etc.) centered in the footer of every page. The first page of your report is the Title Page, but do not show the page number on it or the Letter of Submittal. Start your page numbering from the Acknowledgements page (page iii).

4.4.2 Body

Number using standard Arabic numerals centered in the footer of every page, starting from 1.

4.4.3 End Matter

Number the Glossary, References and Appendices sections in the same fashion as your report body, and continue where the body left off. Do not restart the numbering.

4.5 Section headings

In addition to the section headings found throughout your report body, the following sections will also have headings.

- Acknowledgements*
- Contributions*
- Summary*
- Table of Contents*
- List of Figures*
- List of Tables*
- Conclusions
- Recommendations
- Glossary
- References
- Appendices

Headings shown with an asterisk (*) should be centred (other headings can be left aligned). Each section should start on a new page.

All main report body sections should be numbered, (e.g., 1, 2, 3...). Subsection headers should be bolded and sized at your discretion (smaller than the main section header). Do not indent subsections or start them on a new page.

4.6 Paragraph Structure

All paragraphs should be fully justified and separated by a single blank line. Do not indent the first line of a paragraph. (Hint: A justified paragraph is aligned both left and right; in Word, the shortcut is *Ctrl-J*.)

4.7 Units and Measures

For most applications you should follow the International System of Units (SI) guidelines provided by the National Institute of Standards and Technology (NIST) (8). If necessary, you may use non-SI units in your report, provided that the SI-based equivalents are given in parentheses. This also applies to any figures and tables used in the report.

4.8 Figures and Tables

Figures and tables can be used to quickly convey detailed information to the reader. However, they should be used appropriately and within the limits of the analysis, i.e. they should not be used spuriously (without context). Use a table only when you need to present complex or voluminous data that contain several

variables. If the data set is small or has few variables, consider putting the information into the text rather than into a table. You should refer to any figure or table in the text before it appears. Tables and figures should be placed as near as possible to the paragraph in which they are first mentioned.

Figures and tables must be captioned, consisting of the figure/table number, title, and, if required, reference. The caption should be immediately below the figure and above the table, bounded by the horizontal dimensions of the figure/table. Use 10pt font size, following the example in Table 1.

Table 1: Example Table [Reference]

	1	2
A		
B		
C		

Number your report body figures/tables in the order they appear using Arabic numerals starting from “1” (i.e. 1, 2, 3, etc.). Number figures/tables appearing in your appendices in the order that they appear, using each appendices’ letter index, followed by a dash and an Arabic numeral (i.e. number your figures in Appendix A “A-1, A-2, A-3 etc.”, in Appendix B “B-1, B-2, B-3 etc.”).

Figures/tables should not be placed side-by-side, with no text on either side. Make sure that all figures in your report are of sufficient resolution and legible; do not use a figure if it is of poor quality. Most figures/tables should not have an additional border.

Keep in mind that tables should be formatted to be pleasing to the eye. Avoid splitting the table across multiple pages (but if you must, repeat the headers). Figures and tables can be placed landscaped on their own page, if suitable.

4.9 Binding

Your report must be bound with firm covers and held together at the spine with a two or three-holed binding mechanism or spiral plastic binding. Typically, a clear front cover and a black backing are used. Individual rings, clamps, or any type of spring clips are unacceptable.

4.10 General Writing Tips

This section highlights some of the common issues students have in their writing. For more information, please refer to the Writing Centre website:

<https://uwaterloo.ca/writing-centre/resources#GrammarMechanics>

Avoid Run-on Sentences

Avoid using run-on sentences and ensure that each paragraph covers one topic only. Paragraphs and sections should have a section introducing readers to your topic, a main section that explains details, and a final section that provides a succinct summary.

Avoid Ambiguity

- Avoid: A large amount of money was spent on promotion.
- Use: The company spent approximately \$50,000 on promotion.

Avoid Long-winded Phrases

- Avoid: It will be seen upon examination of Figure 2 that the response declined with time.
- Use: The response declined with time (Fig. 2).

Use Active Voice

- Avoid: The benefit of the new computer system is being considered by the company president.
- Use: The company president is considering the benefit of the new computer system.

Avoid First Person

- Avoid: I conducted an experiment relating to water clarity.
- Use: The experiment relates to water clarity.

Avoid Slang

- Avoid: Repairing the equipment was tough going and the extra work cost the company a bundle.
- Use: Repairing the equipment was complicated, time-consuming, and expensive.

5 Grading

Work reports are marked by an instructor in the Department of Management Sciences, or by a teaching assistant working under the direction of an instructor.

5.1 Marking Scheme

Work term reports are graded for two components: technical communication and technical content. The communication component covers the format and structure of the report, the presentation and flow of material, the quality of English (including spelling and grammar), the appropriate use of references, the overall tone of the report, and adherence to the guidelines.

Technical content is evaluated based on the quality of your engineering analysis. A technically sound report shows evidence of proper modeling, analysis, use of technical tools, and recommendations. In particular, the design component should be well stressed: the problem is clearly stated, the alternatives well spelled, the choice well justified, and the impact of the new design well evaluated within the stated objectives and criteria.

5.2 Grades

Work reports may receive an Outstanding (95: A+), Excellent (89: A), Very Good (75: B), Satisfactory (65: C), or Unsatisfactory (38: F) grade. If your report is graded Outstanding, Excellent, Very Good, or Satisfactory, you will receive a Milestone Credit. If your report is graded Unsatisfactory, you *may* be given the option to resubmit the report once, on the condition that it is returned by the last day of classes of the current term: your final grade will be an average of the original grade (Unsatisfactory) and your resubmitted report's grade. (In other words, your resubmitted report must be graded Very Good for you to receive a final grade of Satisfactory). Unsatisfactory work reports do not receive credit.

Grades awarded for work reports are shown on your Co-operative Student Record as well as your Examination Report and transcripts. Failure to receive, at minimum, a satisfactory grade on either one of your work term reports will require you to complete a "Program Change" form to switch to the regular MMSc program. This means you will not receive the Co-op designation.

5.2.1 Outstanding (95: A+)

A final grade of 'Outstanding' is assigned to a work report that has met the basic format requirements and greatly exceeded the set writing, communication and technical requirements. Except for formatting, each outstanding report can be very different in terms of the topic chosen, analysis methods used and engineering knowledge applied.

Some key characteristics of an outstanding report include but are not limited to: innovation, contribution, substance and effort. An innovative work report can explain the novel adaptation of a type of technology to a specific problem; a new discovery and test of organizational theories. An outstanding work term report should contribute significantly to the student's workplace, own knowledge and, when applicable, to the greater scientific community. An outstanding work report must build its arguments and base its conclusions and recommendations on highly reputable sources, such as peer reviewed journals and

engineering handbooks. An outstanding work report should have extensive appendices to include all complimentary information used in its analysis. An outstanding work report should demonstrate a student's willingness to go above and beyond of what is required in crafting the report and reflect his/her eagerness to learn about new concepts and creativity in applying learned knowledge from both the school and the work place. An outstanding work report need not be long in content, but rather it should demonstrate mastery of language in explaining concepts in a concise and approachable manner to its targeted audiences.

5.2.2 Excellent (89: A)

A final grade of 'Excellent' is assigned to a work report that has met the basic format requirements and exceeded the set writing, communication and technical requirements. A final grade of 'Excellent' is assigned when all evaluation categories have been deemed excellent or above in nature.

What differentiates an excellent work report and an outstanding one is that while an excellent report demonstrates significant effort and achievement on the part of its author, it does not exhibit the ingenuity that truly separates an outstanding report from the rest. A student may have documented the finding and application of industry best practice to solve a particular problem in a very accurate and precise manner, but he/she should receive an excellent in grade instead of outstanding, because there is no evidence of innovation. An excellent work report should demonstrate some creativity in problem solving, especially in adapting old solutions to new problems.

5.2.3 Very Good (75: B)

A final grade of 'Very Good' is assigned to a work report that has met the basic format requirements and mostly exceeded the set writing, communication and technical requirements.

5.2.4 Satisfactory (65: C)

A final grade of 'Satisfactory' is assigned to a work report that has met the basic format requirements and mostly fulfilled the set writing, communication and technical requirements.

5.2.5 Unsatisfactory (38: F)

A final grade of 'Unsatisfactory' is assigned to a work report that has failed to meet the basic format requirements and/or the set writing, communication and technical requirements.

An unsatisfactory report is a report that failed to demonstrate its author's understanding of the purpose of a work report, engineering methods and principles, command of the English language, and compliance to compulsory formatting requirements.

An unsatisfactory report will have likely demonstrated little effort on the part of its writer. The writing quality may be very poor and the report may be ridden with spelling and grammar mistakes. Engineering principles and models may be misunderstood and incorrectly applied to problems. The problems can be poorly defined. The references for the report's arguments can be weak.

In cases when the grader deems that the report can be improved to a 'Satisfactory' level without changing the topic and/or without a complete overhaul of the report, the student may be given one opportunity to

resubmit the report. Normally, work report resubmissions will be due on the last day of classes and must be submitted along with the original report.

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Appendices

Appendix A – Sample Cover Page

UNIVERSITY OF
WATERLOO

Faculty of Engineering
Department of Management Sciences

Mitigating the Effect of Branta Canadenis on
Campus Traffic Flows

Prepared by:
Vulpes R. Hood

Appendix B – Sample Title Page

UNIVERSITY OF
WATERLOO

Faculty of Engineering
Department of Management Sciences

Mitigating the Effect of *Branta Canadenis* on
Campus Traffic Flows

Sherwood Consulting
123 Loxley St.
Waterloo, ON N2L 3G1

Prepared by:

Vulpes R. Hood
ID: 20123456
Previous Academic Term: 2B

June 30, 2011

Appendix C – Sample Letter of Submittal

Vulpes R. Hood
456 Holinground St.
Waterloo, ON N2L 3K1

Feb. 19, 2010

Prof. X, Chair,
Department of Management Sciences
University of Waterloo,
Waterloo, ON N2L 3G1

Dear Prof. X,

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. .
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I hereby confirm that I have received no further help other than what is mentioned above in writing this report. I also confirm this report has not been previously submitted for academic credit at this or any other academic institution.

Sincerely,



Vulpes R. Hood
ID: 20123456

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