

FIT5128/FIT4444/FIT4448 ASSIGNMENT 3: *THESIS*

A. Overview and Deadline

The aim of this assignment is to prepare a **research paper** explaining and justifying the research that you have done. You will be marked on both the quality of research itself and how you have presented it. This assignment is worth **80% of the available marks** for the entire project.¹ **Half the marks available in this assignment (50%) are directly for the research you actually do and your account of the methodology.** The due date for this assignment is:

- For students on FIT5128/ FIT4444/FIT4448 – **Friday 4:30pm, Week 12.**

Late assignments will have five marks deducted (out of 100 available) for each *calendar* day² that they are late, *unless* an extension of time is approved under the applicable University procedures. **If your assignment is seven or more days late, you will automatically receive a mark of zero.**

Warning: The current position is now that the University will decide most extension applications, rather than the Chief Examiner.³ The criteria are likely to be stricter than in previous semesters, especially if an extension is requested due to a delay in research. This means you should plan on the basis that you expect delays. You should also take steps to minimise the risk of delay, such as by completing ethics applications early, and securing resources (such as High-Performance Computing) in advance of you needing to use them. Furthermore, you should write your thesis in parallel with conducting the research.

B. The Thesis Assignment

You must write a **research paper** of no more than 8000 words *excluding references*. Only the first 8000 words (excluding references) that you submit will be marked – examiners will be **instructed to ignore any additional material beyond this** and mark your research paper accordingly. The full thesis must be in the structure set out in **Section C** of this document. In addition to the research paper, you will submit the following, which will **not be directly assessed or marked** but are available for **reference** by your examiners.

¹ For students undertaking a minor thesis, this is three modules in succession – FIT5126/FIT5127/FIT5128. For students on an honours program, this is normally four connected modules – FIT4441/4442/4443/4444 (or FIT4448 instead of FIT4443 and FIT4444 for an Honours student undertaking an 18-credit point thesis).

² An assignment that is submitted after 4:30pm (Melbourne Time for Australia and Kuala Lumpur based Students) is deemed to have been submitted on the following calendar day. For example, an FIT5126 assignment submitted at 5 pm on Sunday on Week 12 would be deemed to be three days late and have 15 marks deducted, whilst one submitted at 4 pm that same day would be treated as being two days late and have 10 marks deducted. These deductions are made **by the administration**, not by individual markers.

³ The exception to this is that the Chief Examiner has the power to give extensions of up to five calendar days, on an application to them.

- **Part 1:** A copy of your literature review you submitted in earlier in the course ('Assignment 2')
- **Part 3 (optional):** Appendices providing supporting documentation of your research (e.g. code lists, datasets ethics forms, interview transcripts).

This report will be marked by two examiners⁴ in line with the **rubric** appended to this document in **Annex A**. This rubric is really important, and you should check you address all the points contained within it when you submit your report. Please note that excellent reports (>90% marks) will in substance and quality of argument **resemble a high- quality conference paper** (or a journal article⁵): the venues that we recognise in the Faculty as being 'high quality' can be found in **Annex C** of this document.

C. Structure of Full thesis

Your report is **required** to have the following structure: (*Note: only **Part 2** is being submitted for direct assessment*). **Length Penalties (per Part B) apply to Part 2.**

Preliminary Sections:

- Title Page. *This is a single page containing (i) a title for your thesis, (ii) your student ID number, (iii) your name, (iv) the course you are studying (FIT5128/FIT4444/FIT4448) and (v) your supervisors name. You **must** also include a **word count for Part 2 (excluding references)**.*
- Table of Contents.

(*You **may** also include acknowledgments in the preliminary sections.*)

Part 1: General Literature Review

A copy of your literature review (and proposal) that you submitted in earlier in the course ('Assignment 1').⁶ This section is **not** (re)marked: instead it is made available purely for reference for your markers.

Part 2: The Research Paper

You should prepare a research paper in a format consistent with the structure and style of a Faculty Quality List paper (see **Annex C**). This paper must be no more than 8000 words in length, *excluding references*. Any words over and above this limit will not be marked. There are three additional requirements:

1. You must **not** copy and paste material from Part 1 into Part 2: instead you should write a *fresh and focussed* argument.⁷

⁴ If the assessors are unable to agree on marks that are *less than* 10 marks different to each other, then the assignments may be marked by a third marker. Otherwise, the mark is automatically the average of that awarded by both markers.

⁵ A research paper in the form of a 'journal article' **must** still be in conformity with the **length limitations** set out in these assignment instructions.

⁶ If you are part-time and completed the old format where the literature review and proposal were separate assignments, then please just submit your 'Literature Review'.

⁷ Please note that Monash University policy prohibits self-plagiarism. As you have already been marked on your literature review, resubmitting it for assessment would be in breach of Monash University policy. The same would apply for attempts to copy and paste text from any other assignment into Part 2 of the thesis.

2. You **must** clearly distinguish between the work that you personally did on the project and the work which is that of others.⁸
3. You **must** provide a reference list covering all citations in the substantive text: this should be at the end of Part 2 and given the heading 'References'.

Part 3: Appendices

You **may** provide supporting evidence for the work that you have completed, comprising purely of original supporting documents generated throughout the course of your project. By way of examples, this might include:

- Code listings of computer code that you wrote yourself.
- Example interview transcripts.
- Illustrations of prototypes.
- Datasets.
- Ethics applications.

The sole purpose of these appendices is to give you the opportunity to provide direct evidence to examiners that you have completed the work you have said you have done in the Research Paper. These appendices are **not marked and cannot be used to extend the substantive research paper length over the 8000-word (excluding references) limit**. A more detailed set of examples of potential inclusions is provided in **Annex B** of this document. Please note that an examiner may request further information from you (via the chief examiner), and the expectation is you would be able to provide any such supporting documentation in the event you are asked.⁹

D. Support with this assignment

The idea of this course is that you work closely with your supervisor (or supervisory team). You should be doing your research in partnership with them and meeting with regularly to progress the project. However, the supervisory team will not 'do' your research for you, or write your report, but they might assist, such as by suggesting ideas, critiquing your work and study designs, or making available facilities or existing tools. It is also permitted (and encouraged) to discuss your work with other people (e.g. in solving programming problems), however any such support must be clearly identified in your final thesis.

Your (lead) supervisor is also your first point of contact if you are unclear about the assignment: if there is any confusion or difficulties that you are unable to resolve with them, then you (or they) can contact the Minor Thesis/Honours Lecturer.

⁸ Not giving clear credit for the work of others would be a breach of Monash University's plagiarism policy. As it clear in the public guide (https://www.monash.edu/students/admin/policies/academic-integrity#tabs_2046348), "Plagiarism is taking and using another person's [work or] ideas, or way of expressing them, and passing them off as your own by failing to give appropriate acknowledgement. This includes material sourced from the internet, staff, other students, and published and unpublished works."

⁹ See the Australian Code for or the Responsible Conduct of Research, 2018 at R22: "Retain clear, accurate, secure and complete records of all research including research data and primary materials. Where possible and appropriate, allow access and reference to these by interested parties." It is appropriate for all such material to be available to examiners if requested and it is the responsibility of the student to ensure that appropriate access to material is maintained to ensure this can take place.

The drafting of the research report must be your own. Whilst we expect your lead supervisor to provide comments and advice throughout the development and drafting of your research paper, they must **not** edit or draft substantial chunks of text for you to include in your assessed submission.

We will provide additional seminars to support the writing of the research paper.

Finally, please read the rubric (Annex A) in detail.

E. Application for Assessment Adjustments

If you have a relevant disability or health condition, you may be entitled to ‘assessment adjustments’ under Part 6 of the University Assessment Regime procedure.¹⁰ The process of applying for these is to first approach the Disability Support Service, and then when they have provided recommendations, please write to the Chief Examiner without delay

F. Submission of Assignment

Your report must be submitted in a PDF format in Moodle in conformity with the following instructions.

1. The file should be named in the following form: *yourStudentID-yourFirstNameSurname-yourSupervisorName-Thesis.pdf*
2. The submission should be completed in line with the timings set out in **Section A** of this document. Late penalties apply per **Section A** of this document.

Please do not leave your submission to the last minute. Instead, you should allow an appropriate amount of time to upload your completed assignment.

G. Some Questions and Answers

What is the difference between a research paper and a traditional thesis?

We have introduced this change to the program to reflect the need for there to be a greater emphasis on research and for students to produce reports in a format that are likely to be publishable (perhaps with some changes) after you have submitted your thesis. What you should write is equivalent to reasonable length conference paper (or a short journal article) at a respectable venue. We hope that many projects will be published in the formal academic literature.

What is the difference between a 24cpt thesis and a 18cpt thesis.

The marking criteria are the same, but different weights are given (with more weight being given for the substance of research in a 24cpt thesis). There is also an expectation for more work to have been done, given the increased time available. For the precise standards, please see the Rubric.

Can I have examples of past research papers?

Your supervisory team will be able to identify a number of research papers (i.e. already published papers) that are similar in style and quality of argument to what is expected in this program. See **Annex C** for a list of venues that are recognised as high quality. Leading venues often have associated guidance that they provide to researchers about how to prepare a high-quality submission, which you may also find to be helpful.

¹⁰

https://www.monash.edu/data/assets/pdf_file/0003/2300925/Assessment-Regime-Procedure.pdf

How long should my research paper be?

Your paper should be as concise as a usual conference research paper in your field, although certain sections involve including slightly more information. The **limit** is 8000 words (excluding references), but this certainly is **not** a target. A lack of focus and concision in your writing is penalised by our marking process (see Criteria 5 in the Rubric, and the general expectation of publishable quality text in Criteria 1, 2 and 4). In practice, it is only interdisciplinary projects and qualitative research studies that we would expect to be close to the 8000-word limit. However, you should also make sure your report is not too short and ensure you have provided all the required details. We would expect that most submissions obtaining high marks will be **at least** 5000 words (excluding references).

Are diagrams and illustrations included in the word counts for the research paper?

No, they are not. After all, diagrams, pictures and illustrations are not words. However, you should be judicious in your choice of diagrams and charts, just as you would be if you were preparing a research paper for submission to a conference or journal.

Why are contributions of the final results ignored in the ‘Substance of Research’ criteria?

Well designed and executed research studies can fail to produce ‘positive’ or ‘statistically significant’ results, without this being the fault of the researcher, especially if the researcher has a limited amount of time to complete a project. What’s more, determining whether or not something is a ‘contribution’ can be a somewhat opinionated exercise which academics sometimes reasonably disagree on: see for example the ‘NIPS experiment’.¹¹ To be fair to the students on the program, the emphasis is therefore on the quality of research design and the extent (and competence) of the implementation of the project. Of course, if you successfully persuade your examiners that you produced positive results based on a rigorous approach, then you would obtain high marks anyway for this criterion. Notably, making an original contribution to knowledge is the standard of a (three/four year) PhD program and is not a requirement of a Minor Thesis or Honours level project. In effect, our approach is to review and assess in line with ‘pre-registered’ studies¹², rather than to emphasise the final results.

Why do I have to resubmit my previous literature review as Part I of this assignment?

This needs to be made available so that the markers can see the wider context when they are assessing the research paper. After all, it is likely that your examiners might not have seen (or marked) your previous assignment: even if they have done so, they will have marked it some time ago.

How long should I expect to spend preparing Appendices?

We expect this will take no more than a few hours for most students. It is simply a matter of cutting and pasting (and possibly shortening) existing material you produced during the course of research, with a few brief additional explanatory notes to explain what the material is.

How will the examiners know which ‘FIT Quality List’ venues that are relevant to this work when applying the marking criteria?

¹¹ <http://blog.mrtz.org/2014/12/15/the-nips-experiment.html>

¹² <https://www.cos.io/our-services/registered-reports>

The reference list you provide in Part 2 will make this clear, as a proportion of the related work will be from those venues. It is worth noting that the difference in writing quality between these types of venues is minimal in any event: the standard is almost uniformly a high one. Your examiners will all be experienced researchers who will have extensive experience of writing and successfully publishing papers at this level of quality. If you prefer to do so, you can also be explicit about a venue that you are targeting in Part 2 of your thesis, but this is optional.

How do I make sure that I am sufficiently clear about the work that I have done and that of others?

The best way to do this is to briefly indicate this in the text. For example, if you developed someone else's software library, you might write '*I expanded [Library X] by [Joe Bloggs] by adding [specific features]*'. If you used someone else's data, then you could say that '*I analysed the [Dataset Name] dataset by [Joe Bloggs], which he has already collected prior to this study*'. If you are unsure what to write, please ask your supervisors. If you prefer you can use footnotes in the relevant places. You can also use the optional acknowledgements section to do this as well, if needed.

How should I format my research paper?

Any consistent format is acceptable. However, we would recommend that you consider adopting a format used for a relevant conference or journal identified in **Annex C**. When preparing figures, you should also be consistent in the use of typeface, colour and so forth with any target venue.

ANNEX A – MARKING RUBRIC FOR RESEARCH PAPER

A1 Overview and Publication Quality Types

This rubric is drafted with respect to different levels of academic publications as a comparator. A full understanding of what is required generally requires substantial experience as an academic and is context-specific: this is why students will normally regularly meet with supervisors to help understand their progress and receive feedback on their drafts before submission. In outline, the following publication standards are applied in this Rubric:

Lightly peer-reviewed / Poster / Work in Progress (D): These works tend to be of the extent of a small pilot study or investigation, albeit executed without any major errors or flaws. The methodology will have the core details, but some high-level decisions taken will be unclear in terms of their justification. The quality of writing will leave some details missing and the argument need not to have much insight or innovation, albeit there will be an accurate interpretation of the (often limited) results in question.

Lower tier / National level conference (Lower HD): These works will be of a more substantial extent than a pilot study, albeit of a scale unlikely to be accepted in a higher-tier conference. The execution may contain a small amount of innovation and the study or investigation will have been executed without any notable errors or substantial flaws. Most of the text will be drafted in a focussed manner, albeit with the occasional infelicity of expression: any missing details will be minor oversights. The argument will have some insight and innovation and there will be an accurate interpretation of the results in question, including in respect of their potential wider implications.

Higher tier / Q1 conference / Q1 Journal (Upper HD): These works will be of a substantial extent and scale, with a substantive amount of innovation, as well as offering a carefully reasoned consideration of all key decisions taken in respect of the design of study or investigation. The text will be drafted in a focussed manner and the arguments advanced will be easy to read and understand, with the points being argued having been carefully selected. The study or investigation will have been executed without any errors or notable deviations from recognised best practice. The work will be described in a manner as to be reproducible, insofar as practicable, with it being clear as to why each decision was taken in the design of the study or investigation. The arguments advanced will be insightful, with there being an accurate interpretation of the results, and an innovative reflection of their wider implications.

Please note that, here we focus on the overall research practice conducted and the presentation quality, **rather than whether results are ‘positive’ or statistically significant.**

A2 Marking Descriptors

This assignment is **marked out of 100**. The rubric should be read with the rest of the assignment instructions, which are also **binding** on examiners. Penalties in respect of the quality of writing (but not argument) can only be applied in respect of criteria 5A and 5B. The marks are apportioned as follows:

Criteria 1A: Abstract and Introduction (5 Marks)

Grade ¹³	Description
N (0%-49%)	There is little or no discernible introduction and abstract.
P (50%-59%)	There is a discernible introduction and abstract, but it is not clear as to what the paper is about or what the proposed contributions are.
C (60%-69%)	There is an introduction and abstract, but it is somewhat unclear as to what the paper is about or what the proposed contributions are. There is an attempt to connect the introduction with the existing literature.
D (70%-79%)	There is a clear introduction and abstract, with a reasonable, if not imperfect attempt to connect the introduction with the existing literature.
Lower HD (80%-89%)	There is a clear introduction and abstract. The introduction is strongly connected with the existing literature. The quality of reasoning and argument is at the level of a work publishable at a lower-tier but reasonable quality venue (e.g. a national level conference, or a lower ranked journal).
Upper HD (90%-100%)	There is a clear introduction and abstract. The introduction is strongly connected with the existing literature. The quality of reasoning and argument is at the level of a work publishable at a well-recognised venue (e.g. a Q1 journal or conference, or a venue in the Faculty Quality List).

¹³ For honours students taking FIT4444 or FIT4448, the appropriate grade will be given per the University grade descriptor <https://www.monash.edu/exams/results/results-legend>. So, a mark of 80% or above will correspond to a 'HI', a mark of 70-79% would correspond to a 'HIIA' and so on.

Criteria 1B: Background (5 Marks)

Grade	Description
N (0%-49%)	There is no background section, or this is brief and contains very little literature (e.g. <5 papers). The background section is poorly drafted and argued.
P (50%-59%)	There is a limited background section with some connection to the literature (e.g. 5-10 papers). The background section is poorly drafted and argued. No clear gap is proposed.
C (60%-69%)	There is a background section with some connection to the literature (e.g. 5-10 papers). A gap is proposed, although not fully argued for.
D (70%-79%)	There is a background section with a reasonable connection to the literature (e.g. 11-15 papers or more). A gap is proposed with a reasonable justification, but the argument for it has some obvious and significant limitations.
Lower HD (80%-89%)	There is a focussed and well-argued background section that contains a judicious selection of literature (i.e. all the literature chosen is relevant to the argument being made). The quality of reasoning and argument is at the level of a work publishable at a lower-tier but reasonably quality venue (e.g. a national level conference, or a lower ranked journal).
Upper HD (90%-100%)	There is a focussed and well-argued background section that contains a judicious selection of literature (i.e. all the literature chosen is relevant to the argument being made). The quality of reasoning and argument is at the level of a work publishable at a well-recognised venue (e.g. a Q1 journal or conference, or a venue in the Faculty Quality List).

Criteria 2: Methodology and Justification (15 Marks if 24cpt or Honours, 20 marks if 18cpt)

NB: The analysis of this criterion takes place as if it were the assessment of a pre-registered study, rather than whether results are 'positive' or statistically significant. The main consideration is whether they have set out a clear plan and justified it.

Grade	Description
N (0%-49%)	There is little or no clear methodology.
P (50%-59%)	There is an account of the method, but little or no argument justifying it. The method is generally unclear.
C (60%-69%)	There is an account of the method and this can be mostly understood, except in respect of small details. There is a limited argument justifying the choice of method.
D (70%-79%)	There is an account of the method that can be fully understood. There is a clear but substantially flawed argument justifying the methodology.
Lower HD (80%-89%)	There is an account of the method that can be fully understood. The quality of the justification of the methodology is at the level of a work publishable at a lower-tier but reasonable quality venue (e.g. a national level conference, or a lower ranked journal).
Upper HD (90%-100%)	There is an account of the method that can be fully understood. The quality of the justification of the methodology is that the level of a work publishable at a well-recognised venue (e.g. a Q1 journal or conference, or a venue in the Faculty Quality List).

Criteria 3: Substance of Research (40 Marks if 24cpt or Honours, 30 marks if 18cpt)

NB: The analysis of this criterion takes place as if it were the assessment of a pre-registered study, **rather than whether results are 'positive' or statistically significant**. This criterion is assessed on the basis that a 24cpt minor-thesis student normally has 12 weeks to conduct their substantive research. For a 18cpt student, this is assessed on the basis of there being 8 weeks to conduct the substantive research.

Grade	Description
N (0%-49%)	The research presented is fundamentally flawed and has little or no connection with appropriate research practice.
P (50%-59%)	Whilst the research was mostly competently conducted, the volume of work is greatly limited or trivial.
C (60%-69%)	Whilst the research was mostly competently conducted, the volume of work is too limited to have had a reasonable prospect of a publication (even in a 'non-paper' track of a well-respected conference).
D (70%-79%)	The research was conducted in line with appropriate research practice and without any major flaws. The extent and competence of the research conducted (ignoring contribution of the final results) is equal in substance to that of a typical publication in a (lightly peer-reviewed) 'non-paper' track at a well-respected conference, for example as a 'work in progress' or a 'poster'.
Lower HD (80%-89%)	The research was competently conducted in line with appropriate research practice. The extent and competence of the research conducted (ignoring contribution of the final results) is equal in substance to that of a typical archival publication at a lower-tier but reasonable quality venue (e.g. a national level conference, or a lower ranked journal).
Upper HD (90%-100%)	The research was competently conducted in line with appropriate research practice. The extent and competence of the research conducted (ignoring contribution of the final results) is equal in substance to that of a typical archival publication at a well-recognised venue (e.g. a Q1 journal or conference, or a venue in the Faculty Quality List).

Criteria 4A: Analysis of Results and Discussion (15 Marks)

Grade	Description
N (0%-49%)	There are little or no clear results. The results are not interpreted or discussed.
P (50%-59%)	A limited but unclear set of results is presented. There is a very brief attempt to discuss or interpret the results.
C (60%-69%)	There are some mostly clear results. However, there is only a limited attempt to discuss or interpret the results.
D (70%-79%)	The results are clear. There is a reasonable, but substantially deficient attempt to discuss and interpret the results.
Lower HD (80%-89%)	The results are clear and presented effectively in line with the conventions of an academic paper. There is a reasonable discussion and interpretation of results. The quality of the discussion is at the level of a work publishable at a lower-tier but reasonable quality venue (e.g. a national level conference, or a lower ranked journal).
Upper HD (90%-100%)	The results are clear and presented effectively in line with the conventions of an academic paper. There is a strong discussion and interpretation of results. The quality of the discussion is at the level of a work publishable at a well-recognised venue (e.g. a Q1 journal or conference, or a venue in the Faculty Quality List).

NB: The analysis of this criterion takes place as if it were the assessment of a pre-registered study, rather than whether the final results are 'positive' or statistically significant. As such, this concerns the presentation, analysis and the interpretation/discussion of whatever results that were obtained, rather than marking the results themselves.

Criteria 4B: Ethics/Data Privacy (5 marks)

Grade	Description
0%	There is need for ethics/data privacy, but it is not introduced at all
80%	There is need for ethics/data privacy, it is introduced but not clearly introduced or something is missing.
100%	there is need for ethics/data privacy, it is clearly introduced or there is no need of the ethics and data privacy.

Criteria 5A: Concision and Focus of Writing (10 Marks)

Grade	Description
N (0%-49%)	The writing is inappropriate and mostly unclear.
P (50%-59%)	There is a limited and mostly unsuccessful attempt to ensure that the account is focussed.
C (60%-69%)	There is some attempt to ensure that the account is focussed, although there are numerous passages with prolixity and a lack of focus.
D (70%-79%)	There is a reasonable attempt to ensure that the account is focussed, although there are a substantial number of passages with prolixity and a lack of focus.
Lower HD (80%-89%)	The argument is drafted in a focussed manner with only the occasional prolixity or clunky wording. The quality of the writing is at the level of a work publishable at a lower-tier but reasonable quality venue (e.g. a national level conference, or a lower ranked journal).
Upper HD (90%-100%)	The research is drafted in a focussed manner which is easy to read and understand. The quality of writing is at the level of a work publishable at a well-recognised venue (e.g. a Q1 journal or conference, or a venue in the Faculty Quality List).

Criteria 5B: General Communication Skills (5 Marks if 24cpt or Honours, 10 marks if 18cpt)

Grade	Description
N (0%-49%)	<ul style="list-style-type: none"> - The style and vocabulary used in the writing are not accurate or articulate, and the writing may consist of poorly structured sentences with frequent grammatical errors. - Poor paragraph structure and development (too short or long) and lack of logic detract from the writing; subheadings, if used, do not clarify the writing. - The document produced has an unclear format, inappropriate for the scope of the task, and technical requirements required by the faculty and/or the discipline have not been addressed. - The student does not attempt to undertake citing and referencing.
P (50%-59%)	<ul style="list-style-type: none"> - The style and vocabulary used in the writing is not accurate or articulate most of time, and the writing, while still able to be followed, may contain some grammatical errors. - Paragraphs are not developed, structured and/or linked logically throughout; if applicable, section headings are not used effectively to clarify the writing. - The document produced has some attempt at formatting, though not entirely appropriate for the scope of the task; the student neglects most technical requirements required by the faculty and/or the discipline. - The student has attempted to undertake citing and referencing with frequent errors.

C (60%-69%)	<ul style="list-style-type: none"> - The style and vocabulary used in the writing is often not accurate or articulate, while the writing consists in the main of clearly structured sentences with few to no grammatical errors. - The writing consists of a set of mostly well composed paragraphs that are in most cases linked logically throughout; if applicable, subheadings are used mostly effectively to clarify the writing. - The document produced has a readable format appropriate for the scope of the task, and the student observes some technical requirements required by the faculty and/or the discipline. - The student follows the requirements for citing and referencing, with some errors.
D (70%-79%)	<ul style="list-style-type: none"> - The style and vocabulary used in the writing are generally accurate and articulate, and the writing consists of clearly structured sentences without noteworthy grammatical errors. - The writing consists of a set of well composed paragraphs that are linked logically, and if applicable, subheadings are used effectively to clarify the writing. - The document produced has a clearly readable format appropriate for the scope of the task, and the student observes most technical requirements required by the faculty and/or the discipline. - The student follows the requirements for citing and referencing, with some minor errors.
HD (80%-100%)	<ul style="list-style-type: none"> - The style and vocabulary used in the writing are consistently accurate and articulate, and the writing consists of clearly structured sentences with no grammatical errors. - The writing consists of a set of very well composed paragraphs that are linked logically throughout, and if applicable, subheadings are used effectively and accurately to clarify the writing. - The document produced has a clearly readable format appropriate for the scope of the task, and the student observes technical requirements required by the faculty and/or the discipline. - The student follows the requirements for citing and referencing. <p><i>NB – for marks within this range, a perfect piece of work would obtain 10 marks, with deductions made as appropriate up and until the point three or more of the above descriptors fall at the D level, or some of them fall at the C level.</i></p>

Annex B: Suggested Content of Appendices

The following is a **non-exhaustive** set of examples of types of research activities and the information that could be provided in the appendices in respect of them. Some projects will involve completing several of these activities, in which case the expected material for each activity may be provided. Appendices may also be provided as separate files external to the thesis document.

Project Example Activity	Examples of Potential Appendices
Collection of research dataset.	<ol style="list-style-type: none"> 1. Any required ethical approval documentation. 2. Data collection protocols. This may include photographs of an experimental setup, or a copy of the questions in a survey (if this was the approach used). 3. The dataset (or an excerpt thereof if the dataset is particularly large).
Computational experiments and/or data analysis.	<ol style="list-style-type: none"> 1. The computer code that was written by the student. If the code was developed in collaboration with others, the student should highlight the lines and aspects of the code which is their own. <ol style="list-style-type: none"> a. This may include examples of code used to conduct testing (e.g. unit tests) to ensure the software is robust. 2. Experimental protocols and details so that the examiner can see how the experiment was conducted. This might include: <ol style="list-style-type: none"> a. Description of the experimental environment (e.g. software user, operating system). b. A list of external libraries relied upon. c. Identification of the dataset in question (if the student did not collect it themselves).
Implementation of an interactive system (e.g. game, web application or simulation) or novel/adapted hardware (e.g. Arduino, Embedded hardware).	<ol style="list-style-type: none"> 1. The computer code that was written by the student. If the code was developed in collaboration with others, the student should highlight the lines and aspects of the code which are their own. 2. Screenshots with brief annotation so that the system can be understood. This may also include an illustration of the hardware, for example by way of captioned photographs.
Qualitative interview study and/or design exercises and subsequent analysis.	<ol style="list-style-type: none"> 1. Ethical approval documentation. 2. List of pre-prepared questions or other supporting material (e.g. prompts, paper prototypes or other relevant artefacts). 3. Annotated transcripts (or examples thereof) that demonstrate that the qualitative analysis was conducted by an appropriate method (e.g. thematic analysis).

Annex C: Faculty Quality List Conferences

Below is the list of Faculty Quality List Conferences as of September 2020. Conferences with higher Core Ranking (A* is the best) or H5-index tend to be the most highly regarded venues. There are also journals that meet the Faculty Quality List standard, which for journals is normally a SNIP of 1.5 or greater on the Scopus Source List and/or (best) quartile of Q1 on the Scimago Journal List.¹⁴ Most students will use conference papers as a relevant comparator, given the relative length of most journal papers.

Acronym	Conference Name	Google Scholar H5-Index	CORE Rank
AAAI	AAAI Conference on Artificial Intelligence	126	A*
ICWSM	AAAI International Conference on Weblogs and Social Media	48	Unranked
CSCW	ACM Conference on Computer-Supported Cooperative Work & Social Computing - proceedings now published in journal - Proceedings of the ACM on Human-Computer Interaction	61	A
CODASPY	ACM Conference on Data and Application Security and Privacy	28	Not in CORE
EC	ACM Conference on Economics and Computation (previously ACM Conference on Electronic Commerce)	40	A*
SENSYS	ACM Conference on Embedded Networked Sensor Systems	34	A*
CoNEXT	ACM Conference on Emerging Networking Experiments and Technology	33	A
Hypertext	ACM Conference on Hypertext and Social Media (previously ACM Conference on Hypertext and Hypermedia - HT)	21	A
RecSys	ACM Conference on Recommender Systems	46	B
EuroSys	ACM European Conference on Computer Systems	38	A
SIGSPATIAL	ACM International Conference on Advances in Geographic Information Systems	25	National

¹⁴ Your supervisor will have access to a complete list of journals accepted as being of sufficient quality in the Faculty.

CIKM	ACM International Conference on Information and Knowledge Management	54	A
IDC	ACM International Conference on Interaction Design and Children	24	B
ISS	ACM International Conference on Interactive Surfaces and Spaces (previously ACM International Conference on Interactive Tabletops and Surfaces)	16*	A
MobiCom	ACM International Conference on Mobile Computing and Networking	48	A*
ICMR	ACM International Conference on Multimedia Retrieval	30	B
SIGIR	ACM International Conference on Research and Development in Information Retrieval	57	A*
ICS	ACM International Conference on Supercomputing	25	A
WSDM	ACM International Conference on Web Search and Data Mining	54	A*
UbiComp	ACM International Joint Conference on Pervasive and Ubiquitous Computing (merger of Pervasive & UbiComp)	54	A*
HPDC	ACM International Symposium on High Performance Distributed Computing	25	A
MOBIHOC	ACM International Symposium on Mobile Ad Hoc Networking and Computing	26	A
ESEC/FSE	ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (previously ACM SIGSOFT International Symposium on Foundations of Software Engineering)	53	A*
ACMMM	ACM Multimedia	58	A*
MMSys	ACM Multimedia Systems Conference	31	Not in CORE
SODA	ACM SIAM Symposium on Discrete Algorithms	49	A*
SIGGRAPH	ACM SIG International Conference on Computer Graphics and Interactive Techniques - proceedings now published in journal - ACM Transactions on Graphics	-	A*
SIGMETRICS	ACM SIG on Computer and Communications Metrics and Performance - proceedings now published in journal - Proceedings of the ACM on Measurement and Analysis of Computing Systems	-	A*

SIGCSE	ACM SIGCSE Technical Symposium on Computer Science Education	31	A
SCA	ACM SIGGRAPH/Eurographics Symposium on Computer Animation	19*	B
KDD	ACM SIGKDD Conference on Knowledge Discovery and Data Mining	90	A*
SIGMOD	ACM SIGMOD International Conference on Management of Data	67	A*
PODS	ACM SIGMOD-SIGACT-SIGART Symposium on Principles of Database Systems	25	A*
PLDI	ACM SIGPLAN Conference on Programming Language Design and Implementation	46	A*
OOPSLA	ACM SIGPLAN International Conference on Object-Oriented Programming, Systems, Languages, and Applications	29	A*
PPOPP	ACM SIGPLAN Symposium on Principles & Practice of Parallel Programming	29	A
POPL	ACM SIGPLAN-SIGACT Symposium on Principles of Programming Languages	48	A*
SAC	ACM Symposium on Applied Computing	30	B
SoCC	ACM Symposium on Cloud Computing	34	Not in CORE
CCS	ACM Symposium on Computer and Communications Security	88	A*
AsiaCCS	ACM Symposium on Information, Computer and Communications Security	37	B
SOSP	ACM Symposium on Operating Systems Principles	42	A*
SPAA	ACM Symposium on Parallelism in Algorithms and Architectures	24	A
PODC	ACM Symposium on Principles of Distributed Computing	28	A*
STOC	ACM Symposium on Theory of Computing	63	A*
UIST	ACM Symposium on User Interface Software and Technology	44	A
HOTNETS	ACM Workshop on Hot Topics in Networks	20	National
HRI	ACM/IEEE International Conference on Human Robot Interaction	46	Not in CORE
IPSN	ACM/IEEE International Conference on Information Processing in Sensor Networks	22	A*
ISLPED	ACM/IEEE International Symposium on Low Power Electronics and Design	21	Not in CORE
FPGA	ACM/SIGDA International Symposium on Field Programmable Gate Arrays	32	Not in CORE

FOGA	ACM/SIGEVO Conference on Foundations of Genetic Algorithms	-	A*
Allerton	Allerton Conference on Communication, Control, and Computing	32	Not in CORE
ACC	American Control Conference	41	Not in CORE
AMIA	American Medical Informatics Association Annual Symposium	26	National
AMCIS	Americas Conference on Information Systems	23	A
ACSAC	Annual Computer Security Applications Conference	29	National
ITiCSE	Annual Conference on Innovation and Technology in Computer Science Education	21	A
ACL	Annual Meeting of the Association for Computational Linguistics (ACL)	135	A*
SIGDIAL	Annual Meeting of the Special Interest Group on Discourse and Dialogue	29	
CHI-PLAY	Annual Symposium on Computer-Human Interaction in Play	25	Not in CORE
AIME	Artificial Intelligence in Medicine in Europe	~11	B
ACCV	Asian Conference on Computer Vision	33	B
BMVC	British Machine Vision Conference	57	B
CHI	Computer Human Interaction (CHI)	95	A*
SIGCOMM	Conference of the ACM Special Interest Group on Data Communication - ACM SIGCOMM Conference (previously ACM Conference on Applications, Technologies, Architectures, and Protocols for Computer Communication)	65	A*
EACL	Conference of the European Chapter of the Association for Computational Linguistics	45	A
INTERSPEECH	Conference of the International Speech Communication Association (INTERSPEECH)	81	A
HLT-NAACL	Conference of the North American Chapter of the Association for Computational Linguistics	90	A
CoNLL	Conference on Computational Natural Language Learning (CoNLL)	39	A
CHES	Conference on Cryptographic Hardware and Embedded Systems (CHES)	~36	A
DIS	Conference on Designing Interactive Systems	31	B
EMNLP	Conference on Empirical Methods in Natural Language Processing (EMNLP)	112	A

FAST	Conference on File and Storage Technologies	41	A
GECCO	Conference on Genetic and Evolutionary Computation	38	A
CIDR	Conference on Innovative Data Systems Research	34	A
COLT	Conference On Learning Theory	54	A*
WMT	Conference on Machine Translation (previously Workshop on Statistical Machine Translation)	35	Not in CORE
UAI	Conference on Uncertainty in Artificial Intelligence (UAI)	34	A*
DCC	Data Compression Conference	20	A*
DAC	Design Automation Conference (DAC)	52	A
DATE	Design, Automation and Test in Europe Conference and Exhibition	46	B
ECRTS	Euromicro Conference on Real-Time Systems	23	A
ECAI	European Conference on Artificial Intelligence (ECAI)	~18	A
ECCV	European Conference on Computer Vision	144	A
ECIR	European Conference on Information Retrieval	27	A
ECIS	European Conference on Information Systems	34	A
ECMLPKDD	European Conference on Machine Learning and Knowledge Discovery in Databases	31	A
ECOOP	European Conference on Object-oriented Programming (ECOOP)	20	A
ESORICS	European Conference on Research in Computer Security	34	A
EUSIPCO	European Signal Processing Conference	31	B
ESA	European Symposium on Algorithms	26	A
ESOP	European Symposium on Programming	25	A
ESWC	Extended Semantic Web Conference (previously European Conference on the Semantic Web)	31	A
ETRA	Eye Tracking Research & Application	~18	Not in CORE

FSE	Fast Software Encryption (FSE) - proceedings now published in journal - IACR Transactions on Symmetric Cryptology	-	B
HICSS	Hawaii International Conference on System Sciences	45	A
DAS	IAPR International Workshop on Document Analysis Systems	18*	B
SECON	IEEE Communications Society Conference on Sensor, Mesh and Ad Hoc Communications and Networks	22	B
CSF	IEEE Computer Security Foundations Symposium	29	A
CVPR	IEEE Conference on Computer Vision and Pattern Recognition	299	A*
CDC	IEEE Conference on Decision and Control	40	A
CEC	IEEE Congress on Evolutionary Computation	70	B
CCNC	IEEE Consumer Communications and Networking Conference	27	B
CICC	IEEE Custom Integrated Circuits Conference	20	Not in CORE
EuroS&P	IEEE European Symposium on Security and Privacy	34	NEW
GLOBECOM	IEEE Global Communications Conference	57	B
ITW	IEEE Information Theory Workshop	21	B
IEEE InfoVis	IEEE Information Visualization Conference - now published in journal - IEEE Transactions on Visualization and Computer Graphics	-	A*
ICASSP	IEEE International Conference on Acoustics, Speech and Signal Processing	86	B
ICALT	IEEE International Conference on Advanced Learning Technologies	17	B
AVSS	IEEE International Conference on Advanced Video and Signal-Based Surveillance	27	B
ICAC	IEEE International Conference on Autonomic Computing	20	B
Big Data	IEEE International Conference on Big Data	41	Not in CORE

BTAS	IEEE International Conference on Biometrics	23	Not in CORE
CLOUD	IEEE International Conference on Cloud Computing	29	B
CLUSTER	IEEE International Conference on Cluster Computing	21	A
ICC	IEEE International Conference on Communications	67	B
INFOCOM	IEEE International Conference on Computer Communications (previously Joint Conference of the IEEE Computer and Communications Societies (INFOCOM))	72	A*
ICCV	IEEE International Conference on Computer Vision	176	A*
ICDM	IEEE International Conference on Data Mining	48	A*
DCOSS	IEEE International Conference on Distributed Computing in Sensor Systems	16*	B
FUZZ	IEEE International Conference on Fuzzy Systems	20	A
HPCC	IEEE International Conference on High Performance Computing and Communications	23	B
ICIP	IEEE International Conference on Image Processing	52	B
ICME	IEEE International Conference on Multimedia and Expo	30	B
ICNP	IEEE International Conference on Network Protocols	21	A
PERCOM	IEEE International Conference on Pervasive Computing and Communications	26	A*
ICRA	IEEE International Conference on Robotics and Automation	94	B
SCC	IEEE International Conference on Services Computing	19*	A
SANER	IEEE International Conference on Software Analysis, Evolution and Reengineering	40	Not in CORE
ICSME	IEEE International Conference on Software Maintenance and Evolution	33	A
ICST	IEEE International Conference on Software Testing, Verification and Validation (ICST)	27	A

SMC	IEEE International Conference on Systems, Man and Cybernetics	29	B
TrustCom	IEEE International Conference on Trust, Security and Privacy in Computing and Communications	26	A
IEEE VR	IEEE International Conference on Virtual Reality	28	A
ICWS	IEEE International Conference on Web Services	21	A
BigData Congress	IEEE International Congress on Big Data	21	Not in CORE
IJCB	IEEE International Joint Conference on Biometrics (joint conference of BTAS and ICB)	23	Not in CORE
RE	IEEE International Requirements Engineering Conference	27	A
ISSCC	IEEE International Solid-State Circuits Conference	56	A
WoWMoM	IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks	25	A
CCGrid	IEEE International Symposium on Cluster Computing and the Grid	25	A
DYSPAN	IEEE International Symposium on Dynamic Spectrum Access Networks	~17	B
HPCA	IEEE International Symposium on High Performance Computer Architecture	53	A*
ISIT	IEEE International Symposium on Information Theory	57	B
ISMAR	IEEE International Symposium on Mixed and Augmented Reality	20	A*
IPDPS	IEEE International Symposium on Parallel & Distributed Processing	36	A
ISPASS	IEEE International Symposium on Performance Analysis of Systems and Software	20	B
WIFS	IEEE International Workshop on Information Forensics and Security	23	Not in CORE
ISGT Europe	IEEE PES Innovative Smart Grid Technologies Conference Europe	16*	Not in CORE

Radarcon	IEEE Radar Conference	34	Not in CORE
RTAS	IEEE Real-Time and Embedded Technology and Applications Symposium	24	A
RTSS	IEEE Real-Time Systems Symposium (RTSS)	21	A*
SLT	IEEE Spoken Language Technology Workshop	25	Not in CORE
FCCM	IEEE Symposium on Field-Programmable Custom Computing Machines	27	A
FOCS	IEEE Symposium on Foundations of Computer Science	54	A*
LICS	IEEE Symposium on Logic in Computer Science	31	A*
S&P	IEEE Symposium on Security and Privacy	74	A*
VLSIC	IEEE Symposium on VLSI Circuits (VLSIC)	28	A
VTC	IEEE Vehicular Technology Conference	46	B
WACV	IEEE Winter Conference on Applications of Computer Vision (previously IEEE Workshop on Applications of Computer Vision)	54	A
WCNC	IEEE Wireless Communications & Networking Conference	37	B
BHI	IEEE-EMBS International Conference on Biomedical and Health Informatics	18*	Not in CORE
ASE	IEEE/ACM International Conference on Automated Software Engineering	45	A
ICCAD	IEEE/ACM International Conference on Computer-Aided Design	33	A (Not primarily CS)
MICRO	IEEE/ACM International Symposium on Microarchitecture	45	A (Not primarily CS)
DSN	IEEE/IFIP International Conference on Dependable Systems and Networks	32	A
NOMS	IEEE/IFIP Network Operations and Management Symposium	22	B
IROS	IEEE/RSJ International Conference on Intelligent Robots and Systems	63	A
INTERACT	IFIP Conference on Human-Computer Interaction	20	A
IFIP Networking	IFIP International Conference on Networking	23	A
ITA	Information Theory and Applications Workshop	27	Not in CORE
IVA	Intelligent Virtual Agents	16*	B

ASSETS	International ACM SIGACCESS Conference on Computers and Accessibility	26	Not in CORE
JCDL	International ACM/IEEE Joint Conference on Digital Libraries	18*	A*
ICALP	International Colloquium on Automata, Languages and Programming	32	A
ICER	International Computing Education Research Conference	24	B
SC	International Conference for High Performance Computing, Networking, Storage and Analysis	44	A
MSR	International Conference Mining Software Repositories	40	A
AINA	International Conference on Advanced Information Networking and Applications	26	B
CaiSE	International Conference on Advanced Information Systems Engineering	21	A
XP	International Conference on Agile Software Development (previously International Conference on Agile Processes in Software Engineering and Extreme Programming)	23	B
ACNS	International Conference on Applied Cryptography and Network Security	21	B
ASPLOS	International Conference on Architectural Support for Programming Languages and Operating Systems	55	A*
AISTATS	International Conference on Artificial Intelligence and Statistics	57	A
AIED	International Conference on Artificial Intelligence in Education	21	A
ICAPS	International Conference on Automated Planning and Scheduling	25	A*
AAMAS	International Conference on Autonomous Agents and Multi-Agent Systems	40	A*
ARES	International Conference on Availability, Reliability and Security	24	B
ICB	International Conference on Biometrics	29	Not in CORE
ICCC	International Conference on Computational Creativity	20	Unranked
EvoMUSART	International Conference on Computational Intelligence in Music, Sound, Art and Design	-	Not in CORE
COLING	International Conference on Computational Linguistics	49	A

CAV	International Conference on Computer Aided Verification	38	A*
ICCCN	International Conference on Computer Communications and Networks	25	A
CONCUR	International Conference on Concurrency Theory	~19	A
ICDE	International Conference on Data Engineering	56	A*
ICDT	International Conference on Database Theory	18*	A
ICDCS	International Conference on Distributed Computing Systems	39	A
ICDAR	International Conference on Document Analysis and Recognition	35	A
EDM	International Conference on Educational Data Mining	29	B
EDBT	International Conference on Extending Database Technology	27	A
FC	International Conference on Financial Cryptography and Data Security	46	B
ICFP	International Conference on Functional Programming - proceedings now published in journal - Proceedings of the ACM on Programming Languages	-	A*
FASE	International Conference on Fundamental Approaches to Software Engineering	19*	B
MobileHCI	International Conference on Human-Computer Interaction with Mobile Devices and Services	30	B
ICIS	International Conference on Information Systems	30	A*
ITS	International Conference on Intelligent Tutoring Systems	~11	A
IUI	International Conference on Intelligent User Interfaces	30	A
LREC	International Conference on Language Resources and Evaluation	38	C
LAK	International Conference on Learning Analytics and Knowledge	40	Not in CORE
ICLR	International Conference on Learning Representations	203	Not in CORE
ICML	International Conference on Machine Learning (ICML)	171	A*

ICMI	International Conference on Multimodal Interfaces (ICMI)	33	B
ICONIP	International Conference on Neural Information Processing	22	A
NIME	International Conference on New Interfaces for Musical Expression	17*	Not in CORE
PACT	International Conference on Parallel Architectures and Compilation Techniques	23	A
ICPP	International Conference on Parallel Processing (ICPP)	22	A
ICPR	International Conference on Pattern Recognition	35	B
PKC	International Conference on Practice and Theory in Public Key Cryptography	29	B
CP	International Conference on Principles and Practice of Constraint Programming (CP)	21	A
RECOMB	International Conference on Research in Computational Molecular Biology	23	B
ICSE	International Conference on Software Engineering	75	A*
KR	International Conference on the Principles of Knowledge Representation and Reasoning	~19	A*
TEI	International Conference on Tangible, Embedded, and Embodied Interaction	27	A
ISWC	International Conference on The Semantic Web	37	A
ASIACRYPT	International Conference on the Theory and Application of Cryptology and Information Security	42	A
EUROCRYPT	International Conference on Theory and Applications of Cryptographic Techniques (EUROCRYPT)	61	A*
TACAS	International Conference on Tools and Algorithms for the Construction and Analysis of Systems	33	A
UMAP	International Conference on User Modeling, Adaptation and Personalization	26	B
VLDB	International Conference on Very Large Databases	70	A*
CRYPTO	International Cryptology Conference (CRYPTO)	52	A*

IJCAI	International Joint Conference on Artificial Intelligence	95	A*
IJCAR	International Joint Conference on Automated Reasoning (merger of CADE, FroCoS and TABLEAUX)	19	A*
IJCNN	International Joint Conference on Neural Networks	46	A
ISMIR	International Society for Music Information Retrieval Conference	36	Not in CORE
CGO	International Symposium on Code Generation and Optimization	26	A
ISCA	International Symposium on Computer Architecture	55	A* (Not primarily CS)
ESEM	International Symposium on Empirical Software Engineering and Measurement	21	A
SEA	International Symposium on Experimental Algorithms	16*	B
ISWC	International Symposium on Wearable Computers	24	A*
ISSRE	International Symposium on Software Reliability Engineering	21	A
ISSTA	International Symposium on Software Testing and Analysis	36	A
ISSAC	International Symposium on Symbolic and Algebraic Computation	17	A*
PACIS	Pacific Asia Conference on Information Systems (PACIS)	23	A
IWCMC	International Wireless Communications and Mobile Computing Conference	25	B
SemEval	International Workshop on Semantic Evaluation	50	Not in CORE
IMC	Internet Measurement Conference	37	A
MICCAI	Medical Image Computing and Computer Assisted Intervention	61	A
NDSS	Network and Distributed System Security Symposium	71	A*
NIPS	Neural Information Processing Systems (NIPS)	198	A*
PAKDD	Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)	23	A
SAT	Theory and Applications of Satisfiability Testing	23	A
RSS	Robotics: Science and Systems	51	A*
SDM	SIAM International Conference on Data Mining	33	A

WiOpt	International Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks	21	B
OSDI	Symposium on Operating Systems Design and Implementation (OSDI)	~49	A*
STACS	Symposium on Theoretical Aspects of Computer Science (STACS)	21	A
WWW	The Web Conference (previously International World Wide Web Conference)	80	A*
SoCG	Symposium on Computational Geometry	20	A