3rd Year Project Handbook 2019/2020

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**Key dates**

Interim report: 22/11/19

Dissertation: 27/3/20

Dear students!

Here it is, our 3rd Year Project Handbook! This handbook shall guide you throughout your entire project: It tells you:

* which deliverables the department requires from you, namely:
* project proposal
* interim report
* dissertation
* poster
* what you should address in each of them
* when they are due
* how they are marked

[Part 1 - Project Tasks 3](#_Toc23248196)

[Deliverables 4](#_Toc23248197)

[Key dates 4](#_Toc23248198)

[Choosing a project 4](#_Toc23248199)

[Project proposal 4](#_Toc23248200)

[Interim report 4](#_Toc23248201)

[Dissertation 5](#_Toc23248202)

[Poster 5](#_Toc23248203)

[Viva 5](#_Toc23248204)

[Presentation Structure 5](#_Toc23248205)

[Delivery of Presentation 6](#_Toc23248206)

[Ethical Issues 6](#_Toc23248207)

[Submission 6](#_Toc23248208)

[Interim Report 6](#_Toc23248209)

[Dissertation 6](#_Toc23248210)

[Part 2 - Managing Your Project 6](#_Toc23248211)

[Planning and time management 6](#_Toc23248212)

[Suggested structure of the dissertation 7](#_Toc23248213)

[Preparing for your viva 10](#_Toc23248214)

[Appendicies 11](#_Toc23248215)

# Part 1 - Project Tasks

# Deliverables

* Interim report (3000 words)
* Dissertation (15000 words)
* Viva + Poster

# Key dates

Project Proposal: 11/10/19 (advisory)

Interim report: 22/11/19

Dissertation: 27/3/20

In total the final year project is worth 40 credits

# Choosing a project

Students will be invited to produce a project proposal based upon a title or alternatively to submit a topic of their own choice for evaluation in the same way as titles on the approved project list. They will be advised of their allocation at the start of their final year, however considerable discussion between the project organizer and the potential student will often occur between the initial proposal and the final setting of the project objectives.

A project list will be drawn up by the project organizer seeking suggestions from members of staff. These suggestions will be initially evaluated by the Project Organizer and may be allocated to one or more-degree courses.

The approved project list will normally be made available to students towards the beginning of the Autumn Term.

# Project proposal

In this Initial Document the students shall demonstrate that they

* understand the motivation of their project
* have a clear project aim,
* know about related work,
* understand the topics revolving around their project
* have a realistic schedule for the work involved
* are aware of potential risks

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# Interim report

This report is to be submitted at the latest by **midnight** **Friday 22nd November 2020**. Feedback will normally be provided within a 2/3-week period following on from this submission. The form of feedback will be either be written via email or presented verbally by the supervisor in a project meeting.

This will be 3000 words and be allocated a maximum of 10% of the overall project mark. This milestone report will be expected to clearly identify the outputs produced from the research/literature review process and how they could be applied to the design of the final deliverable. Research will include aspects of evaluating software, platforms, methodologies, academic research, evaluation of commercial alternatives, etc. If a project possesses a final application as a deliverable then it is expected that the student will have commenced their consideration of the expected s/w development platform.

A chapter should also be included that details the LSEPI aspects associated with your project.

This milestone report being submitted in digital format offers the option of sending it to a Plagiarism Detection Service for formative assessment purposes.

# Dissertation

**TWO hard copies of the dissertation** should be handed in to your supervisor **(or a designated location), by midnight Friday 27th March 2019. Also, an electronic copy of the project is to be submitted.** This date must be regarded as **a firm and final deadline**. No member of staff has the authority to make individual arrangements with a student concerning late submission. In view of the firm deadline, students are advised to aim to submit their reports well before the above 'final' date(s) so as to avoid the excessive pressure of work on the school’s printers and other facilities. It is important that the final report has the **project title, author, and names of the supervisors** clearly printed on the front of the submitted document. This final report should be considered to be the final document that details the full project process. A guide to the expected chapters is provided in the ***Appendices***).

An additional appendix should also be included that details the final LSEPI aspects of the project (this will be based on the LSEPI chapters included in milestones one and two).

# Poster

The poster is a visual presentation of your research findings, so it must be self-explanatory as much as possible. In other words, it should be understandable by the viewer even without a verbal explanation.

The dimensions of the panel provided for displaying posters are 75 cm (width) x 90 cm (height), so ensure that your poster does not exceed these dimensions.

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# Viva

## Presentation Structure

Students are required to prepare a 15-minute presentation. The oral presentation is usually followed by a discussion which can last for about 15 minutes.

Students can prepare Power Point slides for the presentation. The slides should be readable and suitable to an academic audience. Discuss the contents with your supervisors.

## Delivery of Presentation

The explanations/findings should be convincing and be theoretically sound and the contents should be well organized. Be confident and well-prepared with your presentation. The delivery should proceed with a good pace, so that the audience is able to listen and follow the presentation.

# Ethical Issues

General ethical issues can arise in the final year project. For computing projects, this may involve some element of tests or evaluations with users or subjects and possibly contact with people or organizations external to the University. Standard ethical issues concerning informed consent of subjects, anonymity and privacy, respect for others, non-harm, etc. may arise. Students should familiarize themselves with the University ethical guidelines.

This year the Faculty of Computing, Engineering and Science is introducing a procedure that ensures that ethical considerations are considered for each undergraduate project being undertaken.

A form will be presented to students at an early stage (first couple of weeks) that will require them to identify the objectives of their study and explain how any ethical issues will be handled. It is important that the project tutor is fully involved in this process before it is submitted.

# Submission

## Interim Report

This report is to be submitted at the latest by **midnight** **Friday 22nd November 2019**. Submit a hard copy to your supervisor and an electronic copy. Feedback will normally be provided within a 2/3-week period following on from this submission.

## Dissertation

**TWO hard copies of the final report** should be handed in to your supervisor **(or a designated location), by midnight Friday 27th March 2020. Also, an electronic copy of the project is to be submitted.** It is important that the final report has the **project title, author, and names of the supervisors** clearly printed on the front of the submitted document.

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# Part 2 - Managing Your Project

# Planning and time management

One of them most important things you will learn when doing your project is the need to manage your time. Final Year Projects require a considerable amount of time. You should expect to spend at least 150 hours working on it, and probably 200 or more.

Any attempt to try to complete a project in the last couple of months or so of the second semester is doomed to failure. They are complex and require careful thought and analysis to identify manageable component parts.

Consequently, it is essential that you begin your project early, work consistently at it throughout the year, and track your progress closely. Naturally, the best way to do this is to plan your project in considerable detail. We will identify here one of the fundamentals of good project management: scheduling.

* A project schedule is an indispensable tool: building it forces you into thinking about all the things you need to do, their inter-relationships, the time each will take, and what each one will be used for. So, draw up a schedule.
* Identify all the major tasks; break these down into sub-tasks. Note well that the best input for this task is your system specification: there will be a task for each functional block and each data-structure, as well as sub-tasks for analysis, design, implementation, test, integration, and documentation. There will also be tasks for system test and evaluation, as well as documentation and report writing.
* For each task and subtask:
  + estimate how much effort you expect it to take (hours) and over what period you will spread that effort (days): this is the task effort & duration
  + identify the required inputs – information, software, hardware, and, most important of all, the results of other tasks in your project.
  + Identify the expected outputs
  + Identify a course of action to take if the task fails for some reason (*e.g.* the software or hardware doesn’t arrive in time)
* Now try to identify the sequence in which you should do each task. In this, you will have to consider the relationships between each task and the use of the output of one task as the input to another.

In drawing up your project schedule, you may find it useful to use a standard project management tool (such as Microsoft Project). These tools make it easy to draw the schedule and to track your progress. However, they won’t do the planning for you, *i.e.* they can’t identify tasks, subtasks, effort, duration, etc. That’s something you have to do yourself. You should be able to make a good attempt at this by the time you’ve finished reading this handbook. Project management tools can represent a finished schedule as a GANTT chart.

# Suggested structure of the dissertation

The format of your thesis should roughly follow the guidelines below.

* Standard typing, i.e. size 12 font Times Roman (or similar)
* Margins of min. 2.5 cm for top and bottom and min. 3 cm. for left and right margin
* 1.5 line spacing; long quotations can be single spaced
* The layout must be clear and concise
* Referencing: Harvard style

The thesis should more or less follow the order of content as indicated below, though al-lowing for your own individual names of chapters. This suggestion of content items below is based on a traditional academic thesis structure. Notice that your format or narrative could also be thematic interweaving elements of theory, method and data in topic/theme-oriented chapters. The traditional and recommended academic structure of a thesis involves the following items. The ‘Analysis’ is likely to be a major chapter. Also, some title/ elements are compulsory in the form as presented below: that is the abstract, a table of contents, the use of page numbering, and a recognised referencing system.

## Structure of the Project Report

**Title Page**

**Statement of Originality**

**Abstract (A précis of the total project)**

**Acknowledgements**

**Table of Contents**

**Introduction and Objectives**

**Main Body of Report (normally some or all of the following)**

**Plan (timescales )**

**Research undertaken and outputs** (this will be an augmented version of the relevant information taken from the interim report)

**Design & Development**

**Implementation**

**Evaluation undertaken**

- Selection of Suitable Evaluation Methodology

**Future Enhancements and Recommendations**

**Conclusions (refer back to original objectives set)**

**Appendices**

Objectives Setting Report

Agreed Marking Scheme Weightings

References

Bibliography

Diary/Blog Print Out (or summary)

LSEPI

**Poster Layout:**

The contents may be hand-written or digitally printed (e.g. by a laser printer) using an appropriate poster paper or board. The matt finish is preferred rather than a glossy finish. It is recommended that the poster contents be arranged in columns (i.e., vertically) rather than rows (i.e., horizontally). Normally, the introduction should be placed at the upper left and a conclusion at the lower right. The important point to remember is that the contents must be arranged in such a manner that it has a good flow and the poster should be easily understood.

**Illustrations:**

Figures should be comprehensible from a distance of at least 5 feet, so use clear graphics containing large fonts, and an easily readable typeface. Each figure and table should have a heading of one or two lines and additional information should be placed below it. Photographs should be well focused, contain sharp images and have a good contrast. If necessary, one may indicate the scale.

**Text:**

Be short and precise but avoid being too narrative. Use large typeface in short, separated paragraphs. Numbered or bulleted lists are effective ways to convey a series of points. Do not set entire paragraphs in uppercase or boldface type.

**Titles and Fonts:**

Titles and captions should be short and easy to read, in a san’s serif font preferably. Use large lettering as this means a number of people can read the poster from a distance without overcrowding. The caption of your poster should carry the abstract title, authors’ names and their affiliations.

**Poster orientation:**

Posters must be oriented in a "portrait" (vertical) position.

# Preparing for your viva

**Presentation Structure**

Students are required to prepare a 15-minute presentation. The oral presentation is usually followed by a discussion which can last for about 5 minutes. When you have finished presenting, members of the Examination Committee/Assessment Panel will usually discuss your work. There should also be time for questions from the rest of the audience. Students can prepare Power Point slides for the presentation. The slides should be readable and suitable to an academic audience. Discuss the contents with your supervisors.

**Delivery of Presentation**

The explanations/findings should be convincing and be theoretically sound and the contents should be well organized. Be confident and well prepared with your presentation. The delivery should proceed with a good pace, so that the audience is able to listen and follow the presentation. Some tips for improving your presentation are given below.

* Practice good eye contact.
* Emphasis: use body language, pay attention to gestures and manage your pitch to highlight important points.
* Stand straight and face the audience.
* Speak good and clear English
* Make sure that the slides are clear (not blurry), tidy (not messy/not overloaded) and visible/legible (use a suitable font and size).
* The slides must be concise (short points/phrases yet thorough coverage).
* Show diagrams (figures/images, graphs, block diagrams, flowcharts, etc.) in order to cut down explanations as well as to aid the explanations. The images should be visible even to those who are seated at the back of the room.

Practice the presentation in the room which is allocated for the presentation. Test how loudly you should speak and how to move around in the room. If you have audio or video clips in your presentation make sure that the necessary equipment works properly.

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# Appendices

**STATEMENT OF ORIGINALITY**

**IS3D660 & IY3D660 Individual Project**

This is to certify that, except where specific reference is made, the work described within this project is the result of the investigation carried out by myself, and that neither this project, nor any part of it, has been submitted in candidature for any other award other than this being presently studied.

Any material taken from published texts or computerized sources have been fully referenced, and I fully realize the consequences of plagiarizing any of these sources.

Student Name (Printed) ………………………………..

Student Signature ………………………………..

Registered Course of Study ……………………………….

Date of Signing ……………………………….

IS3D660 & IY3D660 Individual Project Assessment 2019-20

Student .....................................................................

Project Title: .....................................................................

Supervisor: (1 or 2) …………………………………………

|  |  |  |
| --- | --- | --- |
| Category | Allocation | Mark |
| Project Management and Engagement  *(Supervisor 1)* | 10 |  |
| Solutions, Evaluation & Conclusions | 15 |  |
| Quality of Dissertation | 15 |  |
| Prototype / System Demo  Or Project Deliverable | 10 |  |
| Interim Report | 10 |  |
| LSEPI | 10 |  |
| VIVA | 20 |  |
| Poster | 10 |  |
| TOTAL PERCENTAGE | 100 |  |

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| --- |
| INTERIM REPORT FEEDBACK |
| LSEPI: Appliance to project |
| PRESENTATION/VIVA/POSTER |
| FINAL REPORT: INCLUDING CONCLUSIONS AND EVALUATIONS |
| OVERALL SUPERVISOR COMMENTS |