L-Università ta' Malta
Faculty of Information & Communication Technology

# MSc/MSc in ICT Dissertation Guidelines as from October 2021

## 1. Scope of Document

- This document operates within the General Regulations for University Postgraduate Awards, 2021.
- The document is required to further specify generic aspects of the University's regulations to the context of the Faculty of Information and Communication Technology.
- The Faculty emphasises the importance that students familiarise themselves with the relevant University Regulations and Faculty Bye-Laws governing their postgraduate degree programme, as well as these Guidelines.

## 2. Citation and Interpretation

- These guidelines may be cited as the Faculty of Information and Communication Technology's Masters Dissertation Guidelines – FICT M.Sc/M.Sc in ICT Dissertation Guidelines.

- In these Guidelines, unless the context otherwise requires –
  - "the Board" means the Faculty Board;
  - "the Course" means the course of studies leading to a Degree of Masters offered by the Faculty of Information and Communication Technology;
  - "the Faculty" means the Faculty of Information and Communication Technology;
  - "the Departments" means the departments within the Faculty of

Information and Communication Technology

- "BoS" means the Board of Studies responsible for the Masters programme.

## 3. Milestones relating to an M.Sc/M.Sc in ICT Dissertation

This section outlines all milestones related to a Masters dissertation within the Faculty of ICT. Whilst initial detail about each milestone is provided here, other sections in this document will further specify deliverables where required.

### Research Proposal (M.Sc. by research)

Students following a Master's degree mainly by research shall submit to the Board, in consultation with their supervisor(s), a provisional title and a research proposal upon application as per article 16 of the University Postgraduate Awards, 2021.

### Ethical Considerations

All research must obtain clearance from the Faculty Research Ethics Committee (FREC). Information can be obtained from the Faculty website:

https://www.um.edu.mt/ict/students/facultyresearchethicscommittee

### Progress Reports

As per the General Regulations for University Postgraduate Awards, 2021, every student's principal supervisor is to submit a progress report according to established procedure. In the case of the Faculty of ICT, supervisors are to submit progress reports to the BOS at the end of each semester. Such reports may include a recommendation to (a) grant an extension of the study period or (b) to terminate the studies prematurely. After making their recommendation, the BOS shall forward the report to the Faculty Board. Further information about these recommendations is provided in article 64 (1) of the University's General Regulations for University Postgraduate Awards, 2021.

## Extension Requests

The Board may grant a student an extension of studies given that the student submits a written request for approval of the extension with an explanation of why the extension is required. Such requests are to be made **no later than three months before the submission date** of the dissertation and are usually only provided for humanitarian reasons. The form ''Extension of Studies request – postgraduate" may be obtained from the below link:

https://www.um.edu.mt/ict/students/formsguidelines/

## Change of Title Requests

All changes in title need to be justified, so a **full explanation** needs to be provided and endorsed by the supervisor and co-supervisor if any. This request will be sent to the responsible BoS for recommendation to the Board. If the Board considers the explanation to be insufficient it will return the request for a fuller explanation. This will result in a delay, so it is in the student's interest to provide a full explanation in the first place. Explanations along the lines of 'The new title better reflects the research being carried out' are insufficient and the recommendation will be suspended until a fuller explanation is provided. The form for a ''Change in Dissertation Title' may be obtained from the below link:

https://www.um.edu.mt/ict/students/forms

## Submission of Dissertation

The student is to send a softbound copy by email to the Departmental secretary together with a submission on the VLE. In addition, a copy of the 'Check list for submission of FYP-Dissertations or Theses' should be sent by e-mail to the Departmental secretary concerned. Link for form is indicated below:

https://www.um.edu.mt/ict/students/forms

The deadline for submission of the dissertation is established by the BoS concerned, which date is sent to students in due time for their information. Submission of dissertations after the deadline and without the express permission of the faculty, if accepted for evaluation, shall result in a reduction of marks as decided by the Board of Examiners. Requests by students for extensions may be granted by the Board or Senate in terms of the applicable regulations.

The Board of Examiners shall take into account the period of extension and may decide on a reduction of marks.

## Oral Examination

Masters-level dissertations shall be subjected to an oral examination in which the student and the Board of Examiners, composed of at least 3 members, shall be present. This examination shall be scheduled when the Board of Examiners is satisfied that the dissertation is of sufficient quality to merit an oral examination as per article 65 of the General Regulations for University Postgraduate Awards, 2021. Admission to the oral examination **does not imply** that the candidate has qualified for the award of the Master degree.

## Hardbound Submission

Following the Board of Examiner's declaration that the student has passed the dissertation study unit and verification has been received from the Board of Examiners Chairperson in case changes were required, the student is to submit one hardbound copy of the dissertation for the Faculty Library, as well as a hardbound copy for the Supervisor and another hardbound copy for the co-supervisor, if applicable, together with a CD/DVD or USB containing an electronic version of the dissertation. The student should also submit any program code, installation instructions, data used for evaluation, and results obtained on CD/DVD or USB to his supervisor(s). The declaration of authenticity should be sent to the Departmental secretary by e-mail and not bound in the hardcopies or included in the digital version and may be obtained from the below link:

https://www.um.edu.mt/ict/students/formsguidelines/

## 4. Research Proposals

The research proposal is to include the following components:

- Provisional title
- An introduction to the subject
- A description of the problem that will be tackled
- An overview of relevant research and theory
- The proposed solutions and their expected impact
- An indication on how the results will be evaluated
- Any ethical issues and how these will be tackled (if applicable)
- The expected timeline
- References
- Signature and statement from proposed supervisor
- Recommendation from the Head of Department

Whilst it is acknowledged that in the early stages of a research project a certain level of detail is unrealistic, the proposal should demonstrate that the student and supervisor have defined a scope and likely methodology which has an appropriate level of academic challenge and is attainable within the timeframe of a Master's degree.

Further guidelines are available at
https://www.um.edu.mt/__data/assets/pdf_file/0008/408923/M.Sc.proposalguidelines.pdf

## 5. Progress Reports

Progress reports are important instruments for monitoring a student's progress and enabling the faculty to take corrective action early should the student start going off course. To this end, progress reports produced by the principal supervisor should explicitly contain:

- An outline of the student's progress since the last progress report
- A declaration of the supervisor's confidence in the satisfactory performance of the student

- Any specific concerns which the supervisor has about the student and proposed corrective actions

The M.Sc./M.Sc in ICT Progress Report form is available on the below link:

https://www.um.edu.mt/ict/students/forms

Problems that affect the student's progress, especially if they could result in a need for an extension or suspension of studies should be brought to the attention of the supervisor and the responsible BoS as soon as possible.

## 6. Dissertation Formatting and Layout

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| Paper Size: | A4 |
| Printing: | One-Sided |
| Line Spacing: | 1.5 |
| Font Size: | Main content: 12pt, Captions: 10pt, Auxiliary content: 10pt allowed |
| Font Type: | Serif font (e.g. Times New Roman) for main content and headings.<br>Monospace font (e.g. Courier New) for algorithms and procedures. |
| Margins: | 2.5mm top, bottom, right, and 37mm left (to allow for binding) |
| Page numbering: | Roman numerals, bottom of page, centered for preliminaries.<br>Arabic numerals from Chapter 1 (Introduction) onwards. |
| Maximum length: | 70 pages for a 30 ECTS dissertation<br>105 pages for a 60 ECTS dissertation<br>125 pages for an 80 ECTS dissertation |

### Page Limit

The page limit indicated above includes the main text of the dissertation only (from the start of the first chapter to the end of the last chapter) and therefore excluding acknowledgements, abstract, table of contents, references and appendices.

If this limit is exceeded the submission will not be accepted and the dissertation will be returned to the student for correction by the Departmental secretary.

Only submissions within the page limit will be sent to the Board of Examiners for examination.

### Layout

The 'Samples of cover page, title page and spine for FYP, Dissertations or Theses' may be obtained from the below link:

https://www.um.edu.mt/ict/students/formsguidelines/

## 7. Dissertation Structure

Whilst the actual structure and wording of individual chapter headings is left to the student, it is important that a dissertation includes the following content:

- **Abstract:** Provides a short (typically 1 page) overview of the dissertation's contents including the tackled problem and high-level results/conclusions.
- **Problem definition:** A definition of the problem being tackled and establishment of the research question(s).
- **Background and Literature Review:** A sufficient background designed to provide examiners with just enough information to be able to understand the work of the dissertation itself as well as the context in which it was tackled.
- **Methodology/Solution:** A detailed explanation of how the problem was tackled along with justifications for all decisions taken in the course of the solution.
- **Evaluation and Results:** Details about how the solution was evaluated with respect to the original research question(s) along with the results achieved.
- **Future Work:** Proposals for the student him/herself or other future researchers with regards to how the work can be extended or used as a basis

for future work in the area.

- **Conclusions:** An outline of the main conclusions from the student's research and the impact of these conclusions on the field.

## 8. Oral Examination

Unless otherwise specified by the BoS of the individual course, an oral examination typically takes the form of a 1-hour viva, which is typically organised as follows:

- Around 20 minutes presentation by the student
- Questions by the examiners. The length of time examiners spend asking questions is not an indication of how well or poorly a candidate has performed

Once the viva is over the candidate will be asked to leave the room to allow the Board of Examiners to deliberate. Following the deliberation, the candidate may be asked to answer further questions, and then leave the room to permit the Board of Examiners to reach a decision. Following the decision, the candidate may be invited back into the room. At this point, the Board of Examiners may indicate whether they intend to recommend that the candidate be awarded an M.Sc/M.Sc in ICT. However, the board cannot give any indication of the mark obtained or claim whether the expected result will be a pass, merit or distinction.

The Chairperson of the Board of Examiners shall make a written list of corrections which should be sent to the students to guide them in undertaking the changes required, not later than a week following the viva-voce examination. A copy of such an email should also be sent to the Departmental secretary and the Principal Supervisor for record and follow-up purposes. A deadline for submission of changes shall also be indicated to the student in accordance with 'Procedures for Boards of Examiners of Master dissertations (less than 60 credits)' and 'Procedures for Boards of Examiners of Master dissertations (60 credits or more)' listed in the link below:

https://www.um.edu.mt/registrar/policiesguidelinesforms/policiesguidelines

The corrections received should be verified by the Chairperson in consultation with the principal supervisor. If they are satisfied with the changes implemented

by the student, the Chairperson shall indicate this in writing at the bottom of the original report signed and dated by all members of the Board of Examiners. Information on major/minor changes may also be viewed on the documents and link listed below:

'Procedures for Boards of Examiners of Master dissertations (less than 60 credits)' and 'Procedures for Boards of Examiners of Master dissertations (60 credits or more)'

https://www.um.edu.mt/registrar/policiesguidelinesforms/policiesguidelines

## Duties of Supervisor

The 'Principles of procedure on the supervision of Masters' dissertations and doctoral theses' may be obtained from the below link:

https://www.um.edu.mt/registrar/policiesguidelinesforms/policiesguidelines/

## Duties of Student

- Taking the initiative in raising problems or difficulties, however elementary they may seem.
- Providing a research proposal by the required deadline.
- To notify supervisor in good time and prior to the termination of their registration period if suspension/extension of studies is needed. Failure to do so may result in a denial of the request.
- To prepare and assemble all materials in all copies of the thesis
- To attend supervisions and be prepared to discuss progress
- To understand that, while the supervisor can provide guidance, the student must be responsible for the original contribution to the subject, and must be responsible for developing a mature, critical knowledge of the subject area and its context.
- The student must take responsibility for ensuring that he or she is fully familiar with the latest developments, trends and controversy in the chosen subject area.
- To ensure that they are not breaking copyright laws and not plagiarising
- To become familiar with the regulations governing the conduct of research, thesis submission procedures, and other University regulations which may affect them, and Faculty guidelines regarding thesis/dissertation style and formatting requirements.
- To inform department/supervisor of change of contact details, including e-mail addresses
- To meet deadlines for submission of work which are agreed with supervisor or provided for in the course regulations and Faculty guidelines
- If necessary, to take courses in English for Academic Purposes, especially if recommended by the supervisor
- If the project is within a larger project, the student's thesis must carefully identify the work done by the student and the work done by the rest of the team