FACULTY OF INFORMATION AND COMMUNICATIONS TECHNOLOGY
Masters Level Dissertation Guidelines

1. Scope of Document

- ☐ This document operates within the General Regulations for University Postgraduate Awards, 2008.
- ☐ 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 Level Dissertation Guidelines – FICT M.Sc. Dissertation Guidelines.

- In these Guidelines, unless the context otherwise requires –

  - "the Board" means the Faculty of ICT's Postgraduate Studies Board;
  - "the Course" means the course of studies leading to a Degree of Master of 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

3. Milestones relating to an M.Sc. Dissertation

This section outlines all milestones related to a Masters level 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 Masters level degree mainly by research shall submit to the Board, in collaboration with their supervisor(s), a provisional title and a research proposal upon application as per article 16 of the for University Postgraduate Awards, 2008.

Ethical Considerations

All proposals for research that involve human subjects must first receive approval from the University Research Ethics Committee (UREC). A student will not be allowed to register for the degree until such approval (with or without conditions) has been obtained in writing from UREC. Guidelines, an explanation of the process, and application forms are available at http://www.um.edu.mt/urec.

Students are responsible for providing the information required for UREC to consider the request. If, during the research/evaluation phase, it becomes clear that a deviation from the original, UREC approved, plan is necessary, the student must re-apply, and obtain written approval, before continuing with the research/evaluation that involves human subjects. The plan approved by UREC together with the UREC permission must be included in the dissertation as an appendix.

Progress Reports (M.Sc. by research)

As per the General Regulations for University Postgraduate Awards, 2008, 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 Panel of Supervision 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 Panel of Supervision shall forward the report to the Faculty's Post-Graduate Sub-Committee. Further information about these recommendations is provided in article 52a of the University's General Regulations for University Postgraduate Awards, 2008.

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.

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, co-supervisor, and Panel of Supervision, before the PG Committee will consider the request. If the PG Committee considers the explanation to be insufficient on which to base a recommendation, it will return the request for a fuller explanation. This will result in a delay to the request for a change in title, 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.

<u>Submission of Dissertation</u>

The student is to submit a soft bound copy for each member of his/her Board of Examiners, together with an electronic version of the dissertation (on CD/DVD).   The student should also submit any program code, installation instructions, data used for evaluation, and results obtained on CD/DVD to his supervisor(s).

<u>Oral Examination</u>

Masters-level dissertations shall be subjected to an oral examination in which the student and at least three members of his/her Board of Examiners 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 54 of the General Regulations for University Postgraduate Awards, 2008. Admission to the oral examination does not imply that the candidate has qualified for the award of the Master degree.

<u>Hardbound Submission</u>

Following the Board of Examiner's declaration that the student has passed the dissertation component of his/her course, and the verification of any required changes having been made, the student is to submit two hardbound copies of the dissertation as well as a hardbound copy for each supervisor, together with a CD/DVD containing   an electronic versions of the dissertation. The student should also submit any program code, installation instructions, data used for evaluation, and results obtained on CD/DVD to his supervisor(s).

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 Masters level degree.

Proposals are expected to adhere to formatting as specified in templates for Microsoft Word and LaTeX provided by the Faculty. Further guidelines are available at http://www.um.edu.mt/ict/PG/MScRes.

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

The Faculty will make templates for Microsoft Word and LaTex available for progress reports.

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 Faculty Doctoral Committee as soon as possible.

6. Dissertation Formatting and Layout

Paper Size: A4
Printing: One-Sided
Line Spacing: 1.5
Font Size: Main content: 12pt, Captions: 10pt, Auxiliary content: 10pt
Font Type:
                     Serif font (e.g. Times New Roman) for main content and headings;
                     Monospace font (e.g. Courier New) for algorithms and procedures.
Margins: 2.5cm top, bottom, right, and 3.7cm left (to allow for binding)
Page numbering: Arabic numerals, bottom of page, centered.
Maximum length:
            32,000 words for a 60 ECTS dissertation
            45,000 words for an 85 ECTS dissertation

The LaTeX dissertation template can be found here:
https://github.com/jp-uom/university_of_malta_LaTeX_dissertation_template

Sample Front Page

<Dissertation Title>

<Author's Full Name>

<Department Name>
University of Malta
<Month and Year>

*Submitted in partial fulfillment of the requirements for
the degree of <Degree Name>*

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:

- **Plagiarism declaration:** Standard form whereby the student declares that the work presented is his/her own.
- **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 are.
- **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 Board of Studies of the individual course, an oral examination typically takes the form of a 1-hour viva, which is typically organised as follows:

- Around 30 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.. 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 Board of Examiners may explain the changes required following the oral examination.

It is possible to fail to satisfy the Board of Examiners that the dissertation and/or oral examination is at the level expected of an M.Sc. In this case, the candidate may be permitted to carry out major corrections and be re-examined by the same Board of Examiners; or, definitively fail.

In any case, any corrections required will be communicated to the candidate in writing normally no later than 10 working days after the date of the oral examination. The corrections may be conducted in collaboration with the supervisor.

Appendix A – Duties of Panel of Supervision

<u>Duties of the Chairman</u>

- Write progress reports as required by Faculty
- Identification of suitably qualified External Examiner in consultation with Supervisor
- Obtain CV of External Examiner
- Submit application for External Examiner to International Office through Head of Department
- Send abstract and Research Proposal to potential External Examiner so they can gauge if the dissertation will be in their area of expertise.
- Organise distribution of the submitted dissertation to members of the Board of Examiners (with covering letter and regulations)
- Obtain report (including assessment mark and recommendation) from External Examiner in reasonable time
- Inform the student and examiners in writing about the way which the viva voce will be carried out at least three weeks in advance
- Chair viva voce examination, represent External Examiner, and write report including recommendations and numeric grade awarded
- Submit Board of Examiners report to the Faculty's Post-Graduate Sub-Committee
- Collect and collate changes to the dissertation required by the Board of Examiners
- Communicate any changes required by the Board of Examiners to the candidate, in writing, within 10 working days of the date of the oral examination.

<u>Duties of the Supervisor</u>

- Accept initial proposal from student
- Attend all meetings of Panel of Supervision
- Make provisions for regular supervisions
- Assess Seminar Credits, if applicable
- Supervise technical report for seminar credit as appropriate and if applicable
- Follow progress of student and inform the Panel of Supervision if supervisions are not regularly attended by the student or if progress is unsatisfactory
- Recommend an extension or suspension of studies if appropriate and for valid reasons
- Ensure timely performance of Seminar credit, if applicable
- Advise student on individual chapters and the first draft of the dissertation
- Contribute to report on first draft
- Assure continuity of supervision, possibly by a third party, by maintaining updated records of student's progress

- ☐ Write progress reports as required by Faculty
- ☐ Submit a timely request for funds for a non-visiting external examiner (even if identity is not know at this stage) to VLEEC.

- ☐ To meet as the Panel of Supervision at least once per semester, and at the request of the supervisor, to discuss the student's progress.
- ☐ To assess Seminar study-unit, if applicable
- ☐ If a member of the Board of Examiners, to assess the dissertation submitted for examination and submit an examiner's report to the Chair in advance of the oral examination.
- ☐ Attend the oral examination as an examiner

Appendix B – Duties of the 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