



Essay Curricular unit: 2017-2018

Goals

The essay aims are:

- to develop research skills, such as literature search, knowledge of the state of the art of the proposed topic, critical assessment of existing results, and identification of outstanding problems;
- to provide the student the first contact with the possible topic of the thesis, under the guidance of a supervisor, by developing a thesis proposal, but still without a firm commitment, either to the topic, or to the student-supervisor collaboration.

Output

The student should produce a written report in the form of a topical review, with a research plan, 30 pages maximum, and defend it in a live presentation of 15-20 minutes plus 10-15 minutes for questions (values indicative depending on the number of presentations per session).

Written report

The report must be written in English, and take the form of a brief review of the proposed topic, with the identification of open issues and problems, together with a research proposal. It should clearly communicate the intended goals, their relevance, the method(s) of approach, and the specific contribution it intends to bring to the state-of-the art. It should be readable and convincing to informed non-specialists in the specific topic addressed.

A possible organization (to be adapted as required) is as follows.

1. Introduction

Give a concise and direct executive summary, with a general outline providing context and broad motivation.

2. State of the art review

Demonstrate knowledge and understanding of the current state-of-the art. Comment on existing methods and/or results. A critical outlook will be valued.

3. Research Proposal

State clearly, and justify, intended goals of the research, in the light of the state-of the art review. Reader should be made aware of the innovative aspects of the proposal. Indicate initial methods of approach, and outline your research plan: experiments, calculations, techniques to master, etc.

4. References

Present the bibliography of the works cited in the text. Use one of the standard formats.



Regardless of the complexity and detail of the proposal keep in mind the "5wh" Rule " 5wh ": what, why, who, when, where, how.

Public presentation

It should be delivered in English with a pre-announced time limit (never more than 30 minutes for presentation and questions). Be direct and non-evasive in your answers.

Rules, Procedures and evaluation

1. The report should be written in English, A4 paper, 11pt font, 1,5 spacing, in the style of a scientific paper, between 15 and 30 pages long, including references.
2. The document should be submitted electronically, as a single pdf file.
3. The Essay supervisor should send the Scientific Committee a one page assessment (max), commenting on the students degree of autonomy in the essay curricular unit.
4. The oral presentation will last 12 minutes, and is followed by a 8 minute question/answer time by the evaluation panel.

The essay grade is decided by an evaluation panel of 3 MAP-fis staff members appointed by the Scientific Committee. The evaluation panel will decide the grade base on the following criteria:

1. Formal quality of the report: structure, clarity and conciseness, readability, correct referencing;
2. Depth of state-of-the-art review; relevance of references, critical outlook, understanding of current methods and/or results;
3. Clear statement of the goals of research plan, their relevance in the context of current state-of-the art , and the feasibility of the plan.
4. Quality of the presentation and ability to answer questions, concisely and convincingly.