DISSERTATION THESIS (m62109p)

Core Course, 5th semester

ECTS units: 30

Course level: Graduate (MSc)

Language: Greek or English

Course Description

The dissertation thesis (DT) consists of the writing by the student of a research essay where the existing bibliography is studied, methodologies are studied and if needed they adopt to the current problem, research hypotheses are formulated, relevant data are collected and processed, empirical results are recorded and conclusions are drawn.

The content of the DT includes, indicatively, some of the following sections: Summary, Introduction, Literature review, Research Hypotheses Development, Description of the data, Empirical results, Simulations to support the findings, Summary and conclusions, Bibliography, Appendices.

Prerequisites

For the preparation of the DT, it is required that the courses of the Msc Program have been completed.

Target Learning Outcomes

The DT aims to give the opportunity to the student to develop and apply research methodologies in real data to topics of scientific interest related to the studies of the Msc program. The goal is for the student to delve deeper into the topic under consideration, study the existing literature, develop his critical thinking by formulating appropriate research hypotheses, collect and analyze appropriate empirical data and acquire skills of investigation and derivation of substantiated conclusions.

General skills expected from a student are the following

• To be able to search, analyze and synthesize data and information, using the necessary technologies.

• To be able to generate new research ideas and methodologies.

• To be able to use existing methodologies and tools but also to create new ones.

• To promote free creative and inductive thinking.

• To be able to develop research skills commensurate with the completion of a master's degree

• To enable the creation of a coherent and logically substantiated text that demonstrates competence in research and the ability to work independently

• Be able to address issues of research design, methodology, ethics and theoretical arguments

• To be able to develop skills in independent research.

Recommended Bibliography

- Regulations about the Master thesis in the MSc in Statistics program.
- Guidelines for the thesis and related templates.

Assessment and Grading Methods

The evaluation of the DT is based on a series of evaluation criteria and its overall scientific merit. Indicatively, some of the questions evaluated are the following:

- Is the research question and its significance in science described?
- Is the purpose of the research presented?
- Are the research framework and methodology briefly mentioned?
- Are research findings summarized?
- Is the significance of the research question and research motivation clearly presented?
- Is the research question connected to the existing literature?
- Is there a need for further investigation of the research question?
- Is the case to be investigated and the objective of the work clearly presented and described?
- Is the work relevant to the curriculum?
- Is the relevant terminology understood by the student and is it used correctly?
- Has the content and organization of the literature review been clearly presented?
- Is the literature cited relevant to the research question?
- Does the review analyze, synthesize, compare and evaluate relevant research?
- Is the specific methodology adequately justified concisely and clearly?
- Is the entire research summarized in a comprehensible manner, its main points stated and the main conclusions presented pointing out any restrictions that apply?
- Are any suggestions for future research mentioned?
- Has the DT regulation as defined by the PMS been observed?
- Is the style of the write-up formal, is terminology used correctly, is repetition avoided and is it consistent?
- Is the text clear, concise and to the point with no grammatical or spelling errors?
- Does the student during the presentation of the DT show mastership on the problem that he presents? Can he answer the questions of the examining committee?

The DE is evaluated by a **three-member examination committee** made up of the supervisor and two other faculty members or lecturers at the program as the valid regulations describe. The student must present the DE before the examining committee.

Use of Information and Communications technology

Yes

Teaching Methods

For each thesis there is one supervisor that has to guide the student for any problem that may occur, provide additional help on the bibliography but also supports the student during all the period.