UNIVERSIDAD POLITÉCNICA DE MADRID

Escuela Técnica Superior de Ingeniería de Sistemas Informáticos

\<Title of the master thesis, which must be identical to the title that appears on the Moodle platform>

MASTER THESIS

Submitted for the degree of Master by:

\<Name and Surnames>

Madrid, \<Year>

Master Degree in Aprendizaje Automático y Datos Masivos

<Title of the master thesis, which must be identical to the title that appears on the Moodle platform>

M A S T E R   T H E S I S

Submitted for the degree of Master by:

<Name and Surnames>

Under the supervision of:

Dr. <Supervisor Name and Surnames>

<[Add co-supervisor if applicable]>

Madrid, <Year>

<Dedication (optional)>

Acknowledgement

<Acknowledgement page (optional)>

Abstract

<Abstract in English: maximum of 4000 characters, plain text (without symbols), structured summary of the thesis (introduction or motivation, objectives, findings and conclusions)>

Resumen

<Resumen en español: máximo de 4000 caracteres, texto plano (sin símbolos), resumen estructurado de la tesis (introducción o motivación, objetivos, hallazgos y conclusiones)>

Table of Contents

List of Figures

List of Tables

Abbreviations and acronyms

UPM Universidad Politécnica de Madrid

Chapter 1

Introduction

This template follows the thesis format of the *Universidad Politécnica de Madrid* (UPM), which are available here.

In the next chapter we provide more information about the rules for preparing the thesis document and the use of this template.

Chapter 2

State of the art

2.1 How to use this template

This template has been developed in accordance with the UPM doctoral thesis formatting guidelines, which – in many respects – follow formatting standards common to many institutions.

The document is divided into three components (front matter, main matter and end matter), each of which has several subcomponents, as shown in Table 2.1:

Table 2.1: Components of the thesis document

Components	Subcomponents
Front matter	Cover
	Frontpage
	Credits page
	[Dedication, Acknowledgment]
	Abstract/Resumen
	Table of Contents
	Lista de Figuras
	List of Tables
	Abbreviations and Acronyms
Main matter	Introduction
	Central chapters specific of each thesis
	Conclusions
End matter	References
	Annexes

Most formatting rules refer to the front matter, that is, the initial pages that appear before

the chapters of the thesis (the main body of the thesis).

Mandatory rules and some recommendations are presented below.

2.2   Mandatory rules

The **key rules** to remember are:

- The first three pages (cover, frontpage, and credits page) must use the format specified in this template.

- The initial pages are mandatory, except for dedication and acknowledgment.

- The thesis is submitted in electronic format (PDF).

- Language: the thesis can be written in Spanish or English.

- Page size: A4

- Numbering: The front matter – before the beginning of the chapters – uses Roman numbering, with the page numbers centred at the bottom, excluding the cover and the frontpage, which should not be numbered. The rest of the text (starting with the Introduction) uses Arabic numbering, with the page numbers centred at the bottom.

The **cover**:

- It must be prepared using this template, entering the appropriate data in the sections marked with < > and without including other information.

- It must include the official name of the center, in Spanish and without abbreviation (see List).

- It must include the full name of the master student.

The **frontpage**:

- It must be prepared using this template, entering the appropriate data in the sections marked with < > and without including other information.

- It must include the official name of the center, in Spanish and without abbreviation (see List). You can include the center logo, respecting the size indicated in the template (see Logos).

- It must include the full name of the master degree program (Master in Aprendizaje Automático y Datos Masivos).

- It must include the full name of the master student.

- It must include the full name of the thesis director (and the co-director if there is one).

The **credits page** (page i):

- It must be prepared using this template, entering the appropriate data in the sections marked with < > and without including other information.

- Includes additional data on the thesis director: position and institution (the same for the co-director if there is one).

- The sections "External Reviewers", "Thesis Tribunal" and "Defense Date" are left empty.

- If the thesis has received funding from any competitive call, it must be indicated at the end of this page (see template).

The **summary**:

- An abstract must be included in both Spanish and English, regardless of the language of the thesis.

- Format: maximum 4000 characters, plain text (no symbols).

- Structure: the abstract is a presentation of the thesis and, therefore, it must have a clear structure, including introduction (or motivation), objectives, development and conclusions.

2.3 Recommendations

Generally, the main body of the thesis covers several chapters, whose number and structure may vary depending on the field of knowledge. As a guide, this template includes the following chapters: Introduction, State of the art, Material and methods, Results, Discussion and Conclusions. The structure of the main body of each specific thesis should be consulted with the thesis supervisors.

Ideally each chapter is organized into sections and subsections, with numbered headings.

As for the font, the recommended styles are Times New Roman, Century, Arial, Book Antiqua, or similar.
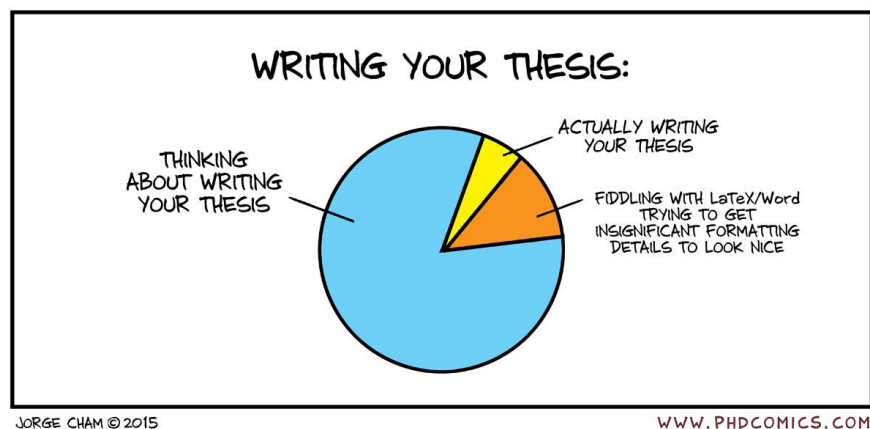

Figure 2.1: Writing your thesis

Using a template helps to use the same format throughout the entire thesis. It is advisable to always use the same style to include citations in the text, as other authors also recommend

<Name and Surnames>

([2, 3, 4]; [5]), to reference including the author name including the name, you can use it like this Ahmad [1]. To format tables (see Table 2.1) and for format figures (see Figure2.1). It is recommended to number tables and figures by chapters (Table 1.1, etc.).

The final part of the thesis includes references and annexes.

References should be included using the style recommended for each field of knowledge.

The annexes include additional material not included in the main text (questionnaires, additional results, etc.). It is recommended to number the annexes alphabetically (A, B, ...) and start each annex on a different page. In case of including tables in annexes, a new numbering will be used independent of that of the body of the thesis (Table A.1., etc.).

Chapter 3

Materials and methods

3.1 Title of section

3.1.1 Title of subsection

Chapter 4

Results

4.1 Title of section

4.1.1 Title of subsection

Chapter 5

Discussion

5.1 Title of section

5.1.1 Title of subsection

Chapter 6

Conclusions

Bibliography

[1] Ahmad, H., . How to write a Doctoral Thesis. Pakistan Journal of Medical Sciences 32. URL: http://pjms.com.pk/index.php/pjms/article/view/10181, doi:10.12669/pjms.322.10181.

[2] Bell, J., . Doing Your Research Project: A Guide for First-Time Researchers in Education, Health and Social Science. Open UP Study Skills. 5. ed ed., McGraw-Hill, Open Univ. Press.

[3] Carter, S., Kumar, V., . 'Ignoring me is part of learning': Supervisory feedback on doctoral writing. Innovations in Education and Teaching International 54, 68–75. URL: https://www.tandfonline.com/doi/full/10.1080/14703297.2015.1123104, doi:10.1080/14703297.2015.1123104.

[4] Odena, O., Burgess, H., . How doctoral students and graduates describe facilitating experiences and strategies for their thesis writing learning process: A qualitative approach. Studies in Higher Education 42, 572–590. URL: https://www.tandfonline.com/doi/full/10.1080/03075079.2015.1063598, doi:10.1080/03075079.2015.1063598.

[5] Rivera Camino, J., . Cómo escribir y publicar una tesis doctoral. 2a edición ed., ESIC Editorial.

Annexes

Include only if necessary, otherwise comment the main.tex file to avoid this