

Guide for drafting a research project

This guide has been drawn up by the Academic Committee of the Doctoral Programme in Chemistry of the UdG with the aim of aiding trainee investigators to draft research projects in their first year. The research project must consist of the following sections:

1) **Title** of the doctoral thesis.

2) **Summary** with a description of the object of study and how the study will be undertaken (maximum ½ page).

3) The **hypothesis**, problem or argumentation the investigator wishes to respond to, study or analyse (maximum ½ page).

The hypothesis gives a possible explanation of the phenomenon that is to be studied based on the observation and analysis of previously available information. The validity of the hypothesis will be tested during the investigative process. It must be clear, precise and logical.

It is very important to write this hypothesis explicitly.

4) **Theoretical basis** of the research project (maximum 1 page).

The theoretical basis must contextualise the study to be undertaken within the current state of scientific knowledge. Here it is necessary to explain theories and studies in general that are related to the subject to be investigated and which gives support to it. The theoretical basis must be duly referenced.

5) **Background** (State of the art) and description of previous research into the subject (maximum 2 pages).

The background should consist of a thorough revision of previously published studies (whether by the research group to which you belong or other groups) that are directly related to the subject of the doctoral thesis. This must be correctly referenced.

After this background you should state the **objectives** that are proposed for the thesis.

6) **Methodology** (maximum 2 pages).

The methodology must include a detailed description of the methods that you intend to employ to achieve your objectives. Each method described must be associated to the specific objectives.

7) **Limitations** if these are foreseen (if applicable, maximum ½ page).

8) **Work plan with timeline** (maximum 2 pages).

The work plan must specify the tasks that need to be performed to achieve the objectives proposed.

The timeline is a graphic representation of the time that will be needed for each of the specific tasks that will be performed for the thesis, including the drafting of the final document and the defence of the thesis itself. Furthermore, training and other related tasks, such as stays in other centres, seminar attendants, lectures, courses, conferences and doctoral workshops, presentation of oral communications, publications in scientific journals, can be considered as timeline points.

An example of a timeline table:

	Year 1 ^a				Year 2				Year 3				
Task 1 ^b													
Task 2													
Task 3													
Task 4													
Task 5													
Task 6													
(...) ^c													
Drafting													
Revision, submission and defence													

^aIt is recommended that the three years that the thesis should take be split into four three-month periods.

^bEach task must be indicated.

^cAdd as many tasks as are necessary.