

# How to Write a Research Proposal

Department of Soil Biology, June 2020  
Suggestions for modification to Ellis Hoffland.

Proposal writing includes 4 steps:

1. You draft a proposal and submit this for feedback to your peer students in the thesis rings.
2. You then prepare a second draft for your supervisor and for the technician (if applicable). Your supervisor will give you detailed feedback; the technician advises on methods and checks feasibility.
3. You present your research proposal during a seminar (see "How to give a seminar" for instructions). You should plan this seminar weeks in advance, together with our secretary. Suggestions from the audience may be included in your final proposal.
4. The next version of the proposal should be the final one. As a guideline, this version should be approved by your supervisor before you can start your experiments. Our administrator will check the budget before approval.

Detailed instructions on academic writing can be found in Part I of the *highly recommended* "English for Writing Research Papers" (Wallwork 2016; available on the Blackboard site of the Thesis Rings – Chapters 1-11).

Below you will find short instructions for writing your research proposal.

Would you need further help in academic writing? Please refer to our Writing Lab:  
<http://www.wur.nl/en/article/Wageningen-Writing-Lab-for-students.htm>

## Sections of your research proposal

### Title page

- Title of the research project, followed by "MSc thesis research proposal" and the course code
- Your name, supervisor name, Chair Group name
- Date of submission of final version
- Optional: illustration relevant to the subject

**Title** should be brief (maximally 12 words) but comprehensive and specific. Does not need to be the same as the title of the final thesis.

### Description of proposed research

**Problem description:** Describe the larger context. What scientific/societal problem will be addressed?

**Background:** What is known already? Review of scientific literature. What are the knowledge gaps?

If you encounter difficulties in searching for relevant literature, an internet-based course ([http://library.wur.nl/infoboard/module\\_2/](http://library.wur.nl/infoboard/module_2/)) may help.

Instructions for handling literature (references) in Endnote or Mendeley can be found at <http://www.wur.nl/en/Expertise-Services/Facilities/Library/Students.htm>

**Aims, research question, hypothesis:** What will be addressed in the thesis study? (Link to the knowledge gaps identified.) What is the overall aim of the thesis study? Specific objectives and testable hypotheses of the study, or research questions?

**Approach, Methods:** Describe the field site (if applicable). What kind of experiments or measurements, how many experiments will you do, which treatments, how many replicates? How long will experiments last? Where will they be done? What kind of analyses, what methods? How many samples, replicates? Statistical approach?

**Appendix:** A list of methods that you will adopt (to prepare our technicians).

**Planning** Include a Gantt chart, indicating activities at the level of weeks. Depending on the methods you will use, your planning must include training sessions. Please consult our laboratory staff to find out when these can be scheduled, and how much time analyses need.

**Cooperation** With whom will you cooperate? Who needs to do what (specify roles), and when? Is everybody aware of your expectations and his/her responsibilities or roles?

**Budget** Includes all operational costs including costs of fieldwork, transport, consumables and analyses. Based on the methods you will use and the number of analyses you plan to do, your supervisor will provide you with an excel sheet to calculate the expected cost (Soil Biology only). These must be within the limits set by the chair group. The price list for chemical analyses of soil, plant and water samples in the Chemical Laboratory can be downloaded from <http://www.wur.nl/en/Expertise-Services/Research-Institutes/Environmental-Research/Facilities-Products/Laboratories-Environmental-Sciences-Group/Chemical-Biological-Laboratory-Bodem-soil/Services.htm>

**References** Add relevant literature references. Use the style from Soil Science Society of America Journal. Instructions on how to generate this list automatically using Endnote or Mendeley can be found at <http://www.wur.nl/en/Expertise-Services/Facilities/Library/Students.htm>

## Layout

Font: Preferably a serif letter, for instance Times New Roman or Cambria, font size 11 or 12  
Line spacing: Single at 1.15 or 1.2, double spacing for drafts  
Margins: 2.5 cm on all sides  
Page numbering on  
Line numbering on (for drafts only) (Office 2016 for Windows: Layout → line numbers → continuous)

The level of detail of the research proposal should be discussed with your supervisor. Usually, a major part of the proposal can be used for the Introduction and Methods of your final thesis.