To plan and write a thesis
- a short overview

Planning and writing essays
- Academic work?
  - Some requirements
  - Scientific basis
  - New knowledge
  - Possible to repeat
- Based on existing knowledge
  - Could be a lot ... (theories, models, hypotheses, concepts, etc.)
  - Relating to this body of knowledge
- Presented in different ways (in writing)

What is non-academic knowledge?
- Can not be verified.
- Relates not or poorly to existing knowledge.
- Everyday knowledge, intuitive based knowledge, prejudices.

Relate to the existing body of knowledge
- Cumulative nature, new knowledge can be added to, or replace existing knowledge.
- It requires that the authors:
  - Know the existing knowledge (and show it)
  - The study is based on the existing body of knowledge
  - The results are anchored through discussion in relation to existing knowledge
  - Don’t invent the wheel again ... what’s done is done
Knowledge contributions

- New improved evidence, rejects or supports existing theories / hypotheses
- New/better/simpler method
- New/better analysis
- New theory or model to explain the phenomena better

General and theoretical interest

- In some respect of public interest.
- Although detailed special studies should be seen in a larger perspective
- Case Studies - keep the connection to the general problem
- Specific problems - the paper tries to shed light on / solve - related to the purpose

Accepted methods

- Change over time (methods are described in the literature)
- Controllable
- Repeatable
- Individual independently (e.g. Photointerpretation)
- The methods should be described in detail so that the above requirements are met.

The full picture...

- The essay parts have to stick together.
- The title, purpose, method, analysis, results, discussion, conclusion should be coherent
- The logical connection is to be made CLEAR to the reader / audience (easier to read and understand).
- Consider this, if the purpose or method changes late in the process.
Yours, mine or anyone else’s ...

- It must always be CLEAR what is the author’s and other people’s contributions, opinions or data.

- If there is no source given is it assumed that the opinion/statement/data/etc is the author’s own.

- Copyright (see course home page)

Planning from the beginning

- Ambition
- Time
- Previous knowledge
- Type of results
- Who owns the problem?
- Responsibility
- Writing

Ambition – high or low

- Strive for new knowledge ...
- Why write a thesis? Clarify! Driving forces?
- Who do you write for? (For yourself, fellow students, businesses, parents, etc.?)
- Good opportunity to lay the foundations for a Master thesis, continued career, special interest area etc.
- Feasible with challenges!
  - Aim (describe, understand, explain, predict)
  - The study’s width / depth
  - Method (which to choose when several are available?)
  - Theory (review, presentation of existing theories, etc.)
  - Empiricism (empirical, based on experiences and observations) - access to data about the object of study

Time

- TTT = Things Take Time
- “Time is an ocean but it ends at the shore…” (Who)
- Clarify how much time is available. 40 hours per week … is quite a lot of time. Other activities (Karneval?).
- Suitable time available vs ambitions
- Timetable … (no more to be included from now)
- 10% extra in the time plan (sickness etc.), you will need it.
- Discuss with supervisor
Previous knowledge/experience
• Provides info on where you stand when you start.
• Courses, experience, previous essays, interest and expertise.
• Consider the previous knowledge when selecting ambition and planning.

Results - To think of early on
• Type of results, numerical, a model, a map, statistical evaluations of variable relationships, etc.?
• Relevance of the results?
• Viewpoint: Who owns the problem? From whose point of view is the problem illustrated?

Responsibility
• YOU!
• The author is responsible for that the study is planned, conducted and reported!
• The supervisor will ensure that you get started and give advice to the best of our knowledge but do not chase you and ask you if you need supervision!
• The authors take the initiative to supervision.
• Meeting every week recommended

Writing
• Get it on paper!
• Write down what you do, from day 1!
• Write down even if you think it does not sound good!
• Note the sources as you find/read them, from the beginning (ENDNOTE!).
Thesis standard sections

- Initial formalities
- Introduction
- Method
- Results
- Discussion
- Conclusions
- References

Initial formalities

- Title page
  - The title, author's name, year, supervisors, department, institution, course in what the paper yesterday, the picture?
- Preface
  - Brief description of the origin of the thesis creation, cooperation, exchange, external work, thanks, financing
- Summary
  - Short concise reproduce the main contents, 1-2 pages.
- Abstract (in English)
- Table of Contents
  - Provides overview, including about 3 levels of headings, short titles, avoid redundancy (max 1 page is recommended)

Introduction

- Should give the reader an understanding of the background, which is why this study is important, in what context is it different?
- Show that your "problem" is important with the help of quotations, references, etc. (General interest)
- Successive narrowing towards the objective - "funnel model"
- Clear and unambiguous purpose (often extensive - clear limitations!)

Methods

- Explain the theory and show that the knowledge base is known (possibly separate chapter)
- Explain what's done and how. Depending on the purpose!
- Choice of method.
  - Several complementary methods available?
  - Justify your choice.
- The study (experiment) should be possible to repeat based on the information in method section!
Results

- Presentation of the results as a function of the selected methods
- Do not mix your own opinions in the results section (separate results and discussion)
- Objectivity
- Extensive measurement data can be attached in the appendix (prioritize, 90 maps...).

Discussion

- Here are the results analyzed and interpreted
  - in an arrangement similar to the arrangement results
  - Or the most important/interesting first (Lindsay)
- Influencing factors
- Patterns, relationships and connections
- Clarify own interpretations
- Comparisons of different solutions or methods
- Uncertainties and sources of error mentioned and discussed

Conclusions

- Summarizing the results, whatever they are based on, and the consequences that these may have
- The conclusion should be short and clear
  - preferably in point form
  - based on the results presented
- Is the purpose is fulfilled?
- Relate findings to the existing body of knowledge and the more general (inverted funnel)
- Continue studies
- Value-neutral performance, null-results (e.g. desertification)

References and sources

- Help the reader to find the information you are basing your study on and suggest continued reading.
- Be careful, collect this information from the start.
- Library Course! (ENDNOTE & other software)