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| **Protocol**  Meeting for Bachelor Thesis, FS 2024 | | | | | | | | | | | |
|  |  | | | | |  |  | | | | |
| **Protocol-No.:** | 02 | | | | | **Project name:** | Bachelor Thesis | | | | |
| **Meeting type:** | Discussion | | | | | **Location:** | GIUB, Bern | | | | |
| **Date / Time:** | 05.03.2024 / 15:15 | | | | |  |  | | | | |
| **Topic / Goals:** | Discussion on the first steps: Data Download and Proposal | | | | | | | | | | |
| **Lead:** | Benjamin Stocker | | | | | **Logger:** | Patricia Gribi | | | | |
|  | | | | | | | | | | | |
| **Participants** | |  |  | | **E-mail** | | | **Present** | **Excused** | **Distribution** |
| Prof. Benjamin Stocker | |  | GECO-Group | | benjamin.stocker@unibe.ch | | | x |  |  |
| Patricia Gribi | |  | Unibe | | patricia.gribi@students.unibe.ch | | | x |  |  |
|  | |  |  | |  | | |  |  |  |
|  | | | | | | | | | | | |
| **Items discussed:** | | | | | | | | | | | |
| 1 Data Download  **2** **Proposal** | | | | | | | | | | | |
| **Next meeting:** | | | | **Attachments:** | | | | | | | |
|  | | | | * Link to proposal | | | | | | | |

| *(Legend for type: D = Decision, P = Pending, I = Information)* | Typ | Resp.: | Date: |
| --- | --- | --- | --- |
| Data Download |  |  |  |
| Questions:   * What grid should I use? * What does zos stand for? * Readme on infos about data download where put in my repo? I put it under data raw although it’s not the actual data |  |  |  |
| Rsync tutorial: <https://gridscale.io/community/tutorials/rsync-tutorial/>   * Need to load data on pc or github? I have not enough space. How whole data storage? |  |  |  |
| Proposal |  |  |  |
|  |  |  |  |
| Admin |  |  |  |
| * Where is my Notion folder? |  |  |  |

**Bachelor-Thesis Information**

### Important dates and meetings

* Week 2-3: Draft research plan to be handed in, meeting to discuss it.
* Week X-3: Draft of thesis to be handed in, feedback from advisor and supervisor within max. 2 weeks
* Week X-(1-2): Presentation in group meeting or PG4um, 15 min.
* Week X: Thesis to be handed in
* Week X+(1-2): Code and data hand-over
* Regular meetings for guiding the work with the advisor are commonly held every two weeks

### Logistics and studies

* 10 ECTS (~ 300 h = 7.15 weeks at 100% = ~6 months at 30% or ~4 months at 50%)
* Individual work plan over the course of the duration of the thesis work, see point above.
* supervision by Prof. B. Stocker; advisor is other person in the group
* Prerequisite: successful completion of Applied Geodata Science I course, or self-study of course material on <https://geco-bern.github.io/agds/> during the first phase of the Bachelor’s thesis (in this case, the duration of the research can be extended).
* Mandatory: follow Colloquium during period of BSc
* BSc students work on their own personal computers

### Thesis requirements

* Write in the form of a research article
* Max. 8000 words (excluding references and Supplementary Material)
* Structure:
  + Abstract (300-500 words)
  + Introduction (~1/4 or article length without abstract and conclusion)
    - Context and motivation of research question Wissenschaftliche Fragestellung der Arbeit erläutern und in Kontext stellen
  + Methods (~1/4 of article length and conclusion)
    - Explain data and methods so that analyses and modelling could be reproduced in a general way based on text.
  + Results (~1/4 of article length without abstract and conclusion)
    - 3-5 display items visualising the main results to support conclusions.
  + Discussion (~1/4 or article length without abstract and conclusion)
    - Meaning of results, relevance of the study, relation to the published literature, implications for the general understanding, limitations.
  + Conclusion and outlook (200-500 words)
    - Summary of main the result, opened opportunities and required steps to get there.
  + Supplementary Material: free form, include materials supporting the research presented in the main part of the thesis, also materials and text documenting “side-paths” taken.
  + Code and data: Analysis code must be made accessible as a git repository, providing and documenting reproducible code organised following the <https://github.com/geco-bern/R_proj_template>, or equivalent (see also <https://geco-bern.github.io/agds/>).

### Grading criteria

* Thesis (3/4):
  + Content: 40%:
    - Scientific content and argumentation
    - Interpretation, explaining relevance and context
    - Critical reflections on data and methods
  + Process: 30%
    - Research plan
    - Time management
  + Form: 30%
    - Code and reproducibility of analyses
    - Work plan and time management
    - Layout of visuals and slides
* Presentation (1/4)
  + Content: 75%:
    - Scientific content and argumentation
    - Interpretation, explaining relevance and context
    - Critical reflections on data and methods
    - Discussion lead
  + Form: 25%
    - Time management
    - Layout of visuals and slides

### Learning objectives

* Research project management
* Scientific process and writing, [link to some resources](https://www.notion.so/684c48bc7061457da32fca19cd0f3a10?pvs=21)
* Conducting a data-intensive research project