

INFORMATION ON BACHELOR THESES

“Department of Microbiome and Applied Bioinformatics (140d)”

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PRACTICAL BACHELOR THESES

- My working group assigns a limited number of practical bachelor theses each year. The exact number and allocation depends on current projects and requests.
- Practical bachelor theses are usually designed to be purely bioinformatics-based and involve scientific projects that are worked on exclusively on the computer, e.g. by analysing an existing data set, but not in a laboratory-experimental way.
- Projects usually involve a period of familiarisation with bioinformatics and statistical methods. They do not require any corresponding prior knowledge, but a high motivation for bioinformatics projects.
- Contact me directly by email if you are interested.

THEORETICAL BACHELOR THESES

- Theoretical Bachelor's theses are assigned in unlimited numbers on topics proposed by the students themselves and concretised after consultation with me.

1. General procedure

- I usually assign topics for theoretical Bachelor's theses based on suggestions from students. To do this, you can contact me by email with topic suggestions, on which I provide feedback for further research, if necessary also by phone.
- With this feedback, you can flesh out your topic after further research and email me a content summary (1-2 pages) with approximate suggestions for:
 - Chapter headings and content in short key words.
(actual statements, not just topics!)
 - Blocks of content or sections of the paper, including the main statements of each chapter.
 - A linked structure or thread that makes sense in terms of content and holds the work together and connects the individual chapters
 - An interesting, novel perspective on the chosen topic with a clearer statement that is justified in the thesis on the basis of literature
- This summary does not have to be perfect, but should serve as the basis for an oral discussion in which we work out a structure together and set it as a template for the actual writing work. - This is where the actual writing work begins.

- Further feedback on specific questions, problems, etc. is optional.
- I recommend registering the work after students have already started writing and can estimate the remaining work. The start of the work can be backdated.
- You should send me what you consider to be a finished paper by email as a Word Doc at least two weeks before the last possible formal deadline for submission to the examination office. This version will be commented on by me with suggested changes and will serve as the basis for the grade of your paper.
- You should, however, incorporate my suggested changes into the final version for the examination office before you officially hand it in, but you do not need to submit the work to me again.
- After submission to the examination office, you should then give an oral presentation of your work to my working group, which will also be included in the overall grade of the paper.

2. Topics

- Are proposed by students and concretised in consultation with me
- If possible, they should be related to the microbiome.

3. Written work

- Format
 - Abstract, Introduction, [Chapter headings according to content], Conclusion, References
 - In German or English
 - Be guided by Nature Reviews (e.g. <https://pubmed.ncbi.nlm.nih.gov/32499497/>)
- Length: max. 35 pages (without references)
 - Basically flexible!
 - Introduction/Introduction: 1-2 pages
 - Results section with 3-6 main chapters: 25-30 pages
 - Conclusion: 2-4 pagesReferenzen
- References
 - Any sentence containing a statement that is not absolutely obvious and generally accepted without a reference at the end.
 - Textbooks should not be cited as references.
 - Cite reviews for general introductory statements of chapters or topics that you only touch on but do not discuss in depth ["(see (Schulze, 2021) for further details)"]. Otherwise, cite original works.
 - Use a consistent format [e.g. name + year "(Schulze, 2021)"].
- **Oral presentation**
 - Your presentation should cover all the main contents of the written work, but prepare it in an appropriate way for an oral presentation.
 - After submission of the written work.
 - Usually in English, only in exceptional cases in German.
 - For my working group, at the Group Meeting (Wednesdays at 9 am).
 - Flexible length (typically 25-45 minutes).