



Doctorates in Bioinformatics and Medical Informatics

Guidelines for PhD Students

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The Faculty of Science (MNF) offers the PhD subjects bioinformatics and medical informatics. Most formal affairs related to doctoral studies in both subjects (and in general) are handled by the [Academic Affairs Office \(Promotionsbüro\)](#) of the MNF. As the IBMI is responsible for research in bioinformatics and medical informatics at the University of Tübingen, it has adopted additional doctoral degree regulations that extend those of the MNF. The major goals of these additional regulations are to ensure

- quality of doctoral theses in bioinformatics and medical informatics
- high-quality supervision and guidance according to international standards

The IBMI regulations are mandatory for all doctorates in bioinformatics and medical informatics that started since March 2021. Currently they specify and implement Thesis Advisory Committees (TACs) and thereby implement the possibility to submit a cumulative thesis.

The most recent version of the **IBMI regulations** can be found here:
<https://uni-tuebingen.de/en/220932>

This document contains detailed information on the doctoral qualification process in bioinformatics and medical informatics and provides further links to relevant resources at the MNF and/or the IBMI.

In case of questions please contact the IBMI coordination office.

What is a TAC and (why) do you need one?

A TAC consists of scientists with broad expertise in the research area(s) a doctoral student is focusing on. The fundamental task of a TAC is to guide its doctoral student throughout the entire qualification process by monitoring the progress and regularly providing constructive feedback and advice.

By offering their expertise, carefully chosen TAC members can make a significant contribution to a successful completion of a doctoral thesis in a reasonable time. Together with the doctoral student, the TAC decides on the appropriate form for the dissertation (c.f. section 'Possible Forms of a Dissertation'). Finally, a TAC can mediate in case of conflicts between a doctoral student and their supervisor(s).

If you have started your doctorate in March 2021 or later you need a TAC. If you have started your doctorate earlier, having a TAC is optional. In the latter case, a doctoral student is required to discuss with their supervisor whether nominating a TAC makes sense before searching one.

Composition and Nomination of a TAC

The members of a TAC have to be selected and nominated by the doctoral student together with their supervisor. A TAC includes at least three members and must meet the requirements specified in the IBMI regulations (please find the link above). **The nomination of a TAC is the student's responsibility and should happen within the first three months after starting the doctorate.**

A TAC is officially nominated by sending the completed form 'IBMI-PhD-TAC-Agreement.pdf' by e-mail to the IBMI coordination office. Please use always the most recent version of the form, which is available from the IBMI website ([IBMI forms](#)). Please use the digital version of this form and not a printout.

Organisation of TAC Meetings

TAC meetings are the central instrument to carry out the intended functions (c.f. section 'What is a TAC and (why) do you need one?'). **These formal meetings of the doctoral student with their TAC must happen at least once a year (regular meeting). The first regular meeting should take place within six months after starting the doctorate. It is the student's responsibility to schedule, organise, and prepare the TAC meetings.**

Whenever they feel it is necessary, either the TAC or the doctoral student may request to meet sooner than the next regular meeting (follow-up meeting). At any time, the student can contact TAC members for personal discussions.

Every TAC meeting needs to be documented using the provided TAC protocol template 'IBMI-PhD-TAC-Protocol.pdf'. Please use always the most recent version of the TAC protocol template, which is available from the IBMI website ([IBMI forms](#)). Please use the digital version of this form and not a printout.

Pre-Meeting Organization

- Schedule the meeting.
- Find a member to take on the role of the chair (must not be the supervisor).
- Organize a suitable location.
- Prepare your TAC report (c.f. section 'TAC Report').
- Fill in 'Part I' of the TAC protocol.
- Send an invitation at least one week before the meeting.

The invitation has to be send by e-mail to the TAC members and to the IBMI coordination office. The prepared TAC protocol and your TAC report have to be attached.

Procedure of the TAC Meeting

During the TAC meeting, the chair fills in 'Part 2' of the prepared TAC protocol and is taking the minutes. The following structure is recommended for a TAC meeting but it might be adapted if needed:

- Presentation of PhD student (20 minutes)
- Discussion with all participants (20 minutes)
- Discussion w/o PhD student
- Discussion w/o supervisor
- Discussion w/o PhD student and supervisor
- Final discussion with all participants

Post-Meeting Organization

After the meeting, the chair signs the TAC protocol and sends it by e-mail to the doctoral student and the supervisor. The doctoral student and the supervisor carefully check the minutes. The doctoral student collects all required signatures and sends the completed protocol by e-mail to the IBMI coordination office (if the TAC protocol has been filled in in paper form, please only send a scan of sufficient quality).

If the doctoral student or the supervisor disagree with the content of the minutes the chair should be consulted. If no consensus can be reached, the IBMI board has to be consulted to resolve the issue.

TAC Report

The main purpose of the report for a TAC meeting is to inform the TAC members about your project(s) and their progress. Additionally, it is an excellent training for writing scientific texts, which is a major competence to be developed in course of the doctoral qualification process.

A TAC report must not exceed five pages and it should include a header that contains your name as well as the date and number of the corresponding TAC meeting. No further specifications are made for the structure of the report, however, please keep in mind to keep your report as concise possible.

Possible Forms of a Dissertation

The MNF accepts three forms of dissertations. Detailed information on the different forms and prerequisites can be found on the website of the [Academic Affairs Office \(Promotionsbüro\)](#).

Summarized briefly, a **monograph** is a self-contained scientific manuscript that does not include already published content. In contrast, a **cumulative dissertation** bundles already published manuscripts written by the doctoral candidate that are embedded in a so-called synopsis, which is a detailed summary showing the connection between the individual manuscripts. Located in between, a **dissertation including scientific manuscripts with co-authors**, as the name implies, allows to include already published content into a format that resembles a monograph.

Thus, the appropriate dissertation form for a doctoral project is highly individual and also depends on the prepared and published manuscripts that are available towards the end of the research phase of the doctoral process. On an individual basis, a TAC recommends the appropriate form by considering the entire work of the doctoral candidate.