EBERHARD KARLS UNIVERSITÄT TÜBINGEN

Institute for Bioinformatics and Medical Informatics (IBMI)

Doctorates in Bioinformatics and Medical Informatics

Guidelines for PhD Students

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Contents

1 Overview

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

- high quality of doctoral theses in bioinformatics and medical informatics

- high quality supervision and guidance according to international standards

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. The IBMI-specific processes and forms that are mentioned below are relevant if you are **not a member of a graduate school**. In this case, you will have the IBMI as an additional organizational unit that accompanies your doctorate besides the Academic Affairs Office of the MNF and your additional point of contact is the IBMI coordination office.

If you are a **member of a graduate school** (e.g. IMPRS or IGIM) and do your doctorate there, the additional organizational unit that accompanies your doctorate besides the Academic Affairs Office of the MNF is your graduate school. Thus, you do have to adhere to their processes and requirements and not the ones of the IBMI described in part 2 of this document. Your additional point of contact is the coordination office of your graduate school. However, **please note that the IBMI regulations mentioned and linked above also apply to your doctorate in the graduate school**. Our regulations are designed to be compatible with the regulations of the relevant graduate schools in Tübingen. The most important requirement that you have to ensure is that the composition of your Thesis Advisory Committee (TAC) matches our regulations.

In case of questions please contact the IBMI coordination office.

2 Doctoral Process

2.1 Thesis Advisory Committee (TAC)

2.1.1 What is a TAC?

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 their progress and by 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. One very important function of our TACs is to give a recommendation on the appropriate form for the dissertation towards the end of the research phase (please read section 'Possible Forms of a Dissertation' carefully). Finally, a TAC can mediate in case of conflicts between a doctoral student an their supervisor(s).

2.1.2 Do I need a TAC?

All PhD students in the subjects bioinformatics and medical informatics that have started their doctorate March 2021 or later must have a TAC.

For PhD students in the subjects bioinformatics and medical informatics that have started their doctorate before March 2021, having a TAC is optional. In the latter case, a doctoral student is required to discuss with their supervisor whether setting up a TAC makes sense before searching one. A common reason to do so is to get a TAC's recommendation to submit a cumulative thesis.

2.1.3 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 6 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.

2.2 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 12 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.

2.2.1 Pre-Meeting Organization

- Schedule the meeting with the TAC members.
- 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 the prepared TAC protocol (PDF) to the meeting chair.
- Send an invitation e-mail with attached TAC report to the TAC members at least one week before the meeting.

2.2.2 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 for a TAC meeting is recommended:

- Presentation of PhD student (max. 15 minutes)
- Discussion with all participants
- Discussion w/o PhD student
- Discussion w/o supervisor
- Discussion w/o PhD student and supervisor
- Final discussion with all participants

2.2.3 Post-Meeting Organization

After the meeting, all participants of the TAC meeting carefully read the TAC protocol and declare their consent by signing it. The doctoral student takes care of collecting 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 send a scan of sufficient quality only).

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.

2.3 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.

2.4 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.

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

Important: this particularly also means that there are no static requirements, such as a specific number of first authorships, upon fulfillment of which the submission of a cumulative dissertation is generally accepted.

3 What Else Matters

3.1 Important Events

3.1.1 Tübingen Bioinformatics and Medical Informatics Day (TüBMI)

The TüBMI is the institute's annual research and networking day for the doctoral students in the subjects bioinformatis and medical informatics. Doctoral students present their work with talks and in course of poster sessions. TüBMI is one of the best opportunities to meet the majority of researchers in these subjects from Tübingen.

Participation at TüBMI is considered mandatory!

3.1.2 IBMI Colloquium

This is the colloquium of our institute which aims at inviting high profile speakers presenting a broad spectrum of topics from bioinformatics, medical informatics, and biomedical informatics. You can receive invitations via the IBMI-Newsletter (c.f. next section) or you have a look at the website:

[Program of the IBMI Colloquium](#)

3.2 Communication Channels

Most important for you is the **PhD student mailing list**. It is strongly recommended to sign up for it:

https://listserv.uni-tuebingen.de/mailman/listinfo/ibmi-phd

Additionally, there's a *newsletter* mailing list for the IBMI. You are cordially invited to also sign up here:

https://listserv.uni-tuebingen.de/mailman/listinfo/ibmi-newsletter

3.3 IBMI PhD Representatives and Network

The IBMI appoints PhD student representatives elected by the PhD students, who are obliged to attend the meetings of the Executive Committee. The number and tenure of the representatives is not

fixed and is determined by the IBMI members and the current representatives; Elections (if necessary) take place during the annual TüBMI. Although there is no formal voting right, the PhD student representatives are a direct communication channel to the members of the institute in order to draw attention to the wishes and problems of the academic mid-level staff. In addition, the PhD student representatives serve as official contacts for questions regarding guidelines or personal concerns for the institute's PhD students.

Moreover, the IBMI PhD student representatives, in cooperation with the IBMI members, strive to organize a structured network for PhD students within the institute. Information on the currently elected representatives and events within the IBMI doctoral network can be found at the Further Information for PhD Students website of the institute.

3.4   IT Infrastructure of the IBMI

The IBMI offers central IT services that are distinct from the University Data Center (ZDV) and which are open to all IBMI groups. These services mainly comprise storage with backup, compute capacity, and virtualization capabilities. In order to get access to the infrastructure you need a dedicated account because it is located inside of a subnetwork of the University that is managed by the Department of Computer Science (WSI).

Detailed information about the infrastructure, the offered services, and the process of getting an account can be found on the documentation sites of our IBMI systems administrators:

https://orinoco.cs.uni-tuebingen.de/
https://orinoco.cs.uni-tuebingen.de/what-we-do.html