

Guidelines

for the implementation of the curriculum for the **Doctoral programme “International Graduate School in Bionanotechnology (IGS-BioNanoTech)”** at the University of Natural Resources and Life Sciences, Vienna, which entered into force on October 1, 2016.

§2

The doctoral programme is a joint study programme of the Nanyang Technological University and the University of Natural Resources and Life Sciences, Vienna based on the implementation agreement between the two universities.

A requirement for admission to the doctoral programme “International Graduate School in Bionanotechnology (IGS-BioNanoTech)” at the University of Natural Resources and Life Sciences, Vienna [BOKU] is 300 ECTS credits in one or more standard courses; at least an MSc degree or equivalent qualification is required.

Another requirement is the admission to the “International Graduate School in Bionanotechnology (IGS-BioNanoTech)” (see implementation agreement between the Nanyang Technological University and the University of Natural Resources and Life Sciences, Vienna).

§3 (3)

The doctoral studies are to be structured as a project (i.e. intended plans), in order to ensure legal security for all parties and to achieve the greatest possible degree of (intra-university) transparency and openness.

The dissertation proposal is supposed to refer to the project and include the following information based on the curriculum on maximum 2 DIN A4 pages:

- The dissertation topic (joint proposal of advisor and student; the dissertation will be in English);
- Nomination of an advisor with *venia docendi* qualification in a relevant field or equivalent qualification
- Presentation of a work schedule approved by the advisor, including:

- Advisory team

The advisory team must include at least 2 individuals with full teaching authorization who have assessed the progress of the dissertation at least once a year. At least one advisory team member must be employed by BOKU and one by Nanyang Technological University (NTU). As well as the appointed advisor, the advisory team members have to collectively monitor the doctoral student’s progress. The doctoral students will be required to present the results of their work at the annual meeting. All findings will be protocolled and all members of the advisory team need to sign this protocol. This protocol is to be submitted along with all other documents and the completed dissertation. The university recognises (target agreement) the advisory team’s (public) doctorate procedure. The university recognises (target agreement) the supervisory team’s (public) doctorate procedure.

- Schedule

- Resource plan (utilization of infrastructure, material, necessary salaries, etc; approval by responsible department head necessary)

- Proposal for doctoral coursework (see item §5 (1))

A project registration form is available on the BOKU intranet.

The doctoral project, in particular the topic, the course list, and the advisor, will be deemed to have been approved if the Dean of Studies does not object within two months of submission of the project registration to the Study Services.

The advisor or topic can be changed prior to submission of the dissertation. A new project must be registered and a statement obtained from the previous advisor. In the event of any changes to the planned coursework, the course list must be re-approved. The statement must be submitted within 6 weeks.

§5 (1) and (3)

The courses for the first part of the doctoral examination (viva voce) must, in the course of the registration of the dissertation project, be submitted by the student with the approval of their advisor and, prior to the courses being completed, be assessed by the course supervisor and approved by the Dean of Studies.

The course list can, where the circumstances justify this, be altered up until the submission of the dissertation; however, no examination can be taken in a new subject before the approval of the Dean of Studies has been granted.

It is possible for the courses to be applied for in stages (i.e. partial selection of courses), with a minimum of 20 ECTS credits. It is possible to choose more than 20 ECTS credits; this will be binding following approval.

Courses should be selected in accordance with the following requirements:

- The courses to be taken must “be related to the dissertation topic”.
- The courses can be selected from those on offer at any Austrian or foreign university, so long as certification can be issued for these. Additionally, BOKU will need to assess whether such a course certification (including mark, scope and dates) can actually be issued (e.g. admission requirements, course capacity constraints).
- No courses from Bachelor's programmes
- If a course is allocated to both a Bachelor's and a Master's programme, or is not assigned to any specific programme, it can be chosen.
- No courses at universities of applied sciences (Fachhochschulen)
- Maximum of 10 ECTS credits with the advisor
- Maximum of 2 ECTS credits for doctoral seminar
- No language courses; also, no subject-specific language courses, no study trips, no “introduction to scientific research” courses, research seminars etc.
- Credits for courses teaching soft skills can be earned up to a maximum of 3 ECTS credits.

For courses at universities or post-secondary institutions outside of BOKU, the Dean of Studies will check whether or not the stated ECTS credits correspond to the workload (25 hours per ECTS credit).

For doctoral students whose advisor is not from BOKU (individuals without a *venia docendi* qualification from BOKU and who are not employed by BOKU), at least 10 ECTS credits must be earned from BOKU courses.

Any subsequent change of courses will be subject to the following:

- Valid justifications must be given (e.g. course is no longer offered; direction of dissertation topic has changed in such a way that a different course corresponds better to the topic;

an unexpected, appropriate course is being offered on a one-off basis by a guest professor or a new appointed professor).

- No negative certificate has been issued for the course being switched out of.
- The course being switched into has not yet been taken.

Examination credits earned for publications:

Non-university research, in particular publications, is to be, upon application by the student, recognized as examination for a course included in the approved individual curriculum, in accordance with the principle of equivalence. A maximum of 5 ECTS credits will be awarded, and the publications must not constitute part of a cumulative dissertation. The equivalence of a publication for the purposes of a course must be confirmed by the course leader.

§6 (1)

Upon approval of the advisor instead of a monograph it is permitted to submit several previously published works that pertain to one topic ("cumulative dissertation") and comply with the requirements below as dissertation. In this case all pertinent research shall be summarized ("Rahmenschrift") including a list of research topics, methods and the scientific and practical relevance of the research. The examination of the facts is the responsibility of the Dean of Studies, whether a monograph or a cumulative dissertation is submitted.

Guidelines concerning monographs:

A monograph is a comprehensive paper, complete in itself, on a single subject. A monograph may contain only **one** introduction to a problem, **one** materials and methods chapter, **one** results section, **one** discussion with any conclusions, **one** summary and **one** list of cited literature. A monograph must not be compiled from several (not-yet- or already-) published articles in professional journals, nor from chapters that themselves have the character and structure of an independent magazine article

Guidelines for cumulative dissertations:

At least two papers as main author or equally-contributing author (for interdisciplinary works) and at least two in journals that are listed in ISI Web of science.

If the dissertation consists of two papers which have both been written by the doctoral candidate as main author or equally-contributing author (for interdisciplinary works) in journals that are listed in ISI Web of science, these two works will alone satisfy the requirements.

The papers must be at least at the stage of **"accepted with minor revisions"** the revised version is to be included in the dissertation.

The reviewers will judge whether or not the conditions of a cumulative dissertation have been met; a corresponding statement must be included in the assessment.

In all, three hard bound copies, each with names entered on the spines, as well as a digital version, must be submitted to the Study Services, one copy to be subsequently forwarded to the National Library, to the University Library (see homepage Study Services) and to NTU.

The dissertation can be embargoed with good reason for up to five years by the doctoral candidate submitting a form to the Study Services. The library will be informed and it will prevent viewing or borrowing of the dissertation for the appropriate period.

§6 (5)

Along with the submission of the dissertation the candidate is asked to indicate his/her chosen date for the second part of the viva voce examination. Thus, the Dean of Studies has sufficient time to obtain evaluations and to appoint an examination board. The candidate is entitled to suggest reviewers.

§6 (6)

Reviewers must not belong to BOKU or NTU, or be co-authors of publications relevant to the thesis.

§7 (1)

When the dissertation is assessed as satisfactory (the reviewers are allotted two months for preparing a written evaluation report with the proposed grade), the Dean of Studies is responsible for determining a date for the second part of the viva voce examination by taking into account preferences of the student and the examination board.

The defensio date will be determined by the Study Services upon receipt of the reviewer report as proposed by the doctoral student.

The report will be available to the entire examination board and the doctoral student one week prior to the scheduled defensio.

§7 (2)

The second part of the viva voce is performed as a defensio of the dissertation in German or English.

The examination board will consist of at least two examiners with a *venia docendi* or equivalent qualification, plus a chairperson with a *venia docendi*. The doctoral graduate has the opportunity to propose his/her examiners. This proposal is to be confirmed by the program managers of BOKU and NTU. The advisor must be neither a member of the examination board nor a reviewer. At least one member of the examination board must belong to a different department from the advisor or come from an external institution.

- Presentation of the dissertation: maximum 30 minutes
- and
- Defence of the dissertation

“Oral examinations” are held publicly, thus an audience is welcome in keeping with the concept of an open university. Based on space requirements admission may be restricted.

Each member of the examination board must be present for the entire duration. All members of the examination board may pose questions to the doctoral student. If all the examination board's questions are answered, the whole auditorium can also put forward their questions within the time limits.

The examination regulations, which must form part of each curriculum, are thus not given as a single paragraph, but are instead made up of paragraphs 3 to 7 and are elucidated in the present regulations.

§7 (3)

The final assessment of the defensio is performed by the examination board and the following points, which are listed on an assessment form, are taken into account:

- Presentation skills

- Ability to explain one's own work
- Existing core subject knowledge
- Existing knowledge in associated subject areas
- Responses to the questions
- Argumentation in the discussion
- Discussion about the references and critical points of the assessment

§7 (4)

The total performance (defensio, dissertation, first part of the viva voce) will be assigned a comprehensive grade. All parts must receive a passing grade.

§7 (5)

The overall assessment of the viva voce is given a 'pass' grade if every part has been positively assessed (see § 7 (4)); otherwise a 'fail' grade is awarded.

After proclamation of the total score the completed evaluation sheet is forwarded internally to the Study Services.

§8

The awarded degree PhD (Doctor of Philosophy) is equivalent to the academic degree Dr.rer.nat. and Dr.nat.techn.

Degree names must not be translated.

October 1, 2016