FAQs on how to obtain a doctoral degree at the Faculty of Biology

<u>NOTE</u>: ALL RULES AND REGULATIONS ARE LAID DOWN IN THE **DOCTORAL REGULATIONS OF THE FACULTY OF** BIOLOGY WHICH IN CASE OF DOUBT WILL HAVE PREFERENCE OVER THE GENERAL ANSWERS GIVEN HERE.

GENERAL QUESTIONS

Do I have to read and understand the Doctoral Regulations of the Faculty of Biology?

Absolutely yes, but it is not a simple task. The Doctoral Regulations are a legal document, and such documents are difficult to read, and even more difficult to understand. Each word is important, and each word may have a specific meaning (which may or may not be defined within the document), and similar sounding words may have different meanings. Therefore, you will need to read the Regulations very carefully and certainly more than once, and you may want to ask your supervisor and the members of your doctoral committee, in particular the Coordinating Member, and your fellow doctoral candidates about its meaning. But do remain critical and do not simply believe what others tell you. One frequent mistake is to believe others who tell you that a certain rule will not apply, or that you will easily obtain an exception from the rule if you ask for it. Even if this may have happened in the past, it may not also happen to you! Rules are there to be followed, not to be bend or broken. That said, we do realise that doctoral projects are highly individual and you may have good reasons to ask for an exception. In that case, we will always be accommodating. But not knowing the rules is not a good reason.

What if the rules change during my doctorate?

You will always have the right to finish your doctorate under the rules of the Doctoral Regulations that were in force at the time when you applied for acceptance into the doctoral programme of the Faculty of Biology. (Note though that the implementing provisions ("Ausführungsbestimmungen"), which explain how a certain rule is to be understood, may change slightly, e.g. as a consequence to an event which made us realise that they were ambiguous – so do check the most recent version of the Regulations that apply to you, including the implementing provisions, from time to time.)

In recent times, the Doctoral Regulations of the Faculty of Biology have changed twice; how do I know which regulations apply to me?

The crucial date is the date when you submitted your formal application for acceptance into the doctoral programme of the Faculty of Biology (not the date when you started working on your project, nor the date when your application was accepted, nor the date when you applied for enrolment as a doctoral student with the university, nor the date of your formal enrolment). If you applied before November 29, 2019, the old doctoral regulations apply. If you applied on or after November 29, 2019, but before August 25, 2020, the new doctoral regulations apply. And if you applied on or after August 25, 2020, the updated new doctoral regulations apply.

What are the main differences between the old and new Doctoral Regulations?

The main differences are listed in a table which you can find on the website of the Doctoral Examinations Office. The most important differences are: 1) a mandatory workshop on Good Scientific Practice, 2) regular participation in a seminar organised by several research groups, 3) mandatory annual meetings of the doctoral committee.

Why did we introduce the mandatory workshop on Good Scientific Practice?

In recent years, fraud and scientific misconduct have been issues broadly discussed in the public. As a scientist (particularly as a scientist with a doctorate), you will have a specific responsibility towards science and society (you will have to make a pledge to this effect when obtaining your final doctoral

certificate before you will be allowed to carry the title Dr. rer. nat.). However, while there are set rules for what is correct scientific behaviour and what is not (as e.g. laid down in the Rules for Good Scientific Practice of the DFG), there are also decisions which you will have to take based on values rather than on pure science only. And decisions based on values can differ between different scientists, depending on their point of view. The workshop will help you realise this, and to support you in developing your own point of view, in defining and refining your own values. Of course, your supervisor should be a strong (and hopefully good) role model for you, but you should not simply adopt her or his point of view and values without thinking about them thoroughly. The workshop can only be a start in this important process.

Why did we introduce the mandatory participation in a seminar organised by several research groups?

In most cases, such a seminar is already in place and doctoral candidates attend it more or less regularly. Typically, external speakers are invited who present their most recent results, and you can discuss with them. Often, the speakers also visit the labs, giving you an opportunity to interact with them face to face and to start building your own scientific and professional network – an extremely important point for your future career. If you are a member of a thematically oriented Structured Doctoral Programme (SP), it will typically offer such a seminar series in which the topics treated will be rather close to your own research so that you can directly profit from new first-hand information. On the other hand, the seminar series should not focus too narrowly on just one topic, so that you do learn new things, and see old things in a new light. This is the reason why the seminar needs to be organised by different groups, not only your own group.

Why did we introduce mandatory annual meetings of the doctoral committee?

The doctoral committees were introduced to provide each doctoral candidate with a group of three experts who feel a responsibility to support her or his doctoral project. Also, the members of the committee are potential contacts in case of problems e.g. with the supervisor (such as transparency towards the end of the project regarding what is still required before submission of the thesis, a frequent cause of problems and misunderstandings). However, in many cases, the committees never met, because meetings were not mandatory and the members of the committee were too busy to attend such meetings (in some cases, the supervisors apparently even insisted that the committees should not meet). This is why we made these meetings mandatory. Once a year, you need to meet with your committee, it is a right as much as a duty.

What are the main differences between the new and the updated new Doctoral Regulations?

The main differences are listed in a table which you can find on the website of the Doctoral Examinations Office. The most important differences are: 1) mandatory membership in a structured doctoral programme, 2) a Doctoral Agreement signed by doctoral candidate and supervisor.

Why did we introduce Structured Doctoral Programmes (SPs)?

At first sight, it might appear as if we are limiting your freedom by prescribing a set list of things you need to do during your doctoral studies. You might even perceive this need as an extra burden in addition to your scientific work on your doctoral project. However, this is not the intention, and it is also not the case, at least not in each SP. Each SPs has its own list of requirements and its own offers. If you do not like any of the thematically oriented SPs and their requirements, you do not need to become a member (unless your supervisor insists on it). In that case (or if there is no thematically oriented SP in your area of research), you will be a member of the SP BioSciences which has a minimal list of requirements. In fact, almost all of its requirements are automatically fulfilled in any good doctoral project (such as publishing a paper, visiting a conference, learning some new scientific

skills, spend some time in a different lab, etc.). As the options you can choose from are wide, they do not take any additional time that you would not have spent on them even if there were no SPs. The difference is that now, you have a right to these important aspects of any good doctoral training, and your supervisor will have to support you. There is a single subject which is not automatically covered in all research groups, not even in all good research groups, namely to think about your career wishes and options. This is a subject in which your supervisor may not be an expert who can support you, because as a professor, she or he may never have left the university system, and may know little about career prospects outside Academia, and about the expectations and requirements of the job market. Most SPs will offer professional workshops to support you in your career planning. The SP BioSciences offers workshops in the areas "Academic and Societal Impact Trainings", "Management Trainings", and "Career Development Trainings". You only must attend a minimum of two such workshops (with a total duration of three days – in the three to four years of your doctoral project), and they can even belong to the same area. So, if you are determined to focus entirely on an academic career, you can choose workshops from the area "Academic Trainings" (such as "Scientific Writing" or "Statistics for Biologists") only and do not need to bother with thinking about what comes after your doctorate. The difference with having SPs is: there is this offer, and you can choose from it. And even your supervisor cannot prevent you from attending.

Why did we introduce the Doctoral Agreement?

The mutual signing of a Doctoral Agreement by the doctoral candidate and her or his supervisor serves to increase transparency concerning what the supervisor expects from the candidate, and what the candidate can expect from the supervisor. Even though such an agreement is meanwhile even expected by the DFG, it is still a matter of highly controversial discussions. The Doctoral Agreement only defines the minimum expectations, and it is hoped that reality will beat these many times over. Of course, as with most such minimal rules, what is defined here as a formal requirement was equally met and exceeded in the past without signing any document. But we see it as a starting point to improve transparency and mutual responsibilities in cases where this was not always so.

If the new doctoral regulations, but not the updated new doctoral regulations apply to me, do I have to be a member of a structured doctoral programme?

No, the mandatory membership in a structured doctoral programme started with the updated new rules. However, if you wish, you can apply for membership with the Board ("Leitungsgremium") of the Structured Doctoral Programme (SP) BioSciences or of any other of the SPs of the Faculty of Biology (a list can be found on the website of the Doctoral Examinations Office).

If the new doctoral regulations, but not the updated new doctoral regulations apply to me, can I become member of a structured doctoral programme?

Possibly yes, but you need to apply. If you want to become a member of the SP BioSciences, you need to apply with the Doctoral Examination Board to be allowed to continue doctoral studies under the updated new Doctoral Regulations ("Änderungsordnung"). If this application is granted, you will automatically be a member of the SP BioSciences. If you want to become a member of a different structured doctoral programme, you need not apply to the Doctoral Examination Board but instead, you can apply directly to the structured doctoral programme of your interest, and they may or may not accept you as a member. In that case, you can continue under the (non-updated) new Doctoral Regulations.

If the updated new doctoral regulations apply to me, do I have to be a member of a structured doctoral programme?

Yes, you do. If you are not a member of one of the thematically oriented structured doctoral programmes (SP) of the Faculty of Biology (a list can be found on the website of the Doctoral Examinations Office), you will automatically become a member of the SP BioSciences upon acceptance into the doctoral programme of the Faculty of Biology.

What is the difference between registration at the Faculty of Biology and enrolment at the University of Münster?

You first need to be accepted into the doctoral programme of the Faculty of Biology (for which you have to apply at the Doctoral Examinations Office of the Faculty of Biology within six months after the start of your doctoral project) before you can be enrolled as a doctoral student of the Faculty of Biology at the University of Münster (for which you need to apply at the Student's Office ("Studierendensekretariat"). Note that (according to the new Doctoral Regulations) you need to be enrolled as a doctoral student of the Faculty of Biology for at least six semesters (three years) before obtaining your doctoral degree.

Whom can I ask if I have questions concerning the Doctoral Regulations of the Faculty of Biology, the application process to be accepted into the doctoral programme of the Faculty of Biology, or the Enrolment as a doctoral student of the Faculty of Biology at the University of Münster?

For these questions, you may approach Mrs. Christa Beyer at the Doctoral Examinations Office of the Faculty of Biology.

Whom can I ask if I have questions concerning the Structured Doctoral Programme (SP) BioSciences or any other SP of the Faculty of Biology?

Each SP has a Scientific Coordinator whom you can approach. For the SP BioSciences, this is Dr. Ursula Windmüller.

If I have any problem in my doctorate, whom can I approach?

For formal questions, you can approach Mrs. Christa Beyer at the Doctoral Examinations Office of the Faculty of Biology or the Scientific Coordinator of your structured doctoral programme (Dr. Ursula Windmüller in the case of the SP BioSciences). For scientific questions and questions of supervision, your first contact should be your supervisor, then the members of your doctoral committee (in particular the Coordinating Member). If the problem cannot be resolved at this level (or for some reason you do not want to discuss it at this level), you may approach the Scientific Coordinator of your structured doctoral programme or the Chairperson of the Doctoral Examination Board (currently Prof. Bruno Moerschbacher). In severe cases, you can also approach the Ombudsperson for doctoral studies at the Faculty of Biology, currently Prof. em. Hans-Joachim Galla, former Professor of Biochemistry at the Faculty of Chemistry and Pharmacy (and thus fully independent of anyone in the Faculty of Biology or the Medical Faculty), but normally only after first contacting the Chairperson of the Doctoral Examination Board of the Faculty of Biology. Important note: if you are perceiving an emerging problem, do tell and get help from a person you trust early; a small and new problem may be solved without much trouble, while a huge and old problem may cause a lot of distress.

BEFORE STARTING THE DOCTORAL PROJECT

What are the formal requirements to be accepted into the doctoral programme of the Faculty of Biology at the University of Münster?

There are (mainly) three formal requirements: 1) an adequate degree, 2) acceptance by a supervisor, 3) a doctoral committee.

What is an adequate degree for acceptance into the doctoral programme of the Faculty of Biology at the University of Münster?

Typically, you should hold a Masters degree in a Natural Science (Biology, Chemistry, Physics, Geology, Informatics, Mathematics) after five (at least four) years of research-oriented studies.

I have studied Biotechnology (or Biochemistry or Biophysics or Bioinformatics or Biomedicine); can I be accepted into the doctoral programme of the Faculty of Biology?

In general, yes, but it may depend on the specific programme you studied. In this case, it is highly recommended to send in copies of your degrees (undergraduate and Masters) and Transcripts of Records to the Doctoral Examinations Office of the Faculty of Biology for a preliminary check; however, you should only do so once you have identified a potential supervisor.

I have studied Chemistry (or Physics or Mathematics or Informatics); can I be accepted into the doctoral programme of the Faculty of Biology?

Yes, but typically only if the supervisor of your doctoral project is a member of the Faculty of Biology (or of the Medical Faculty or of the Max Planck Institute for molecular Biomedicine, in which case one of the other members of your doctoral committee will need to be a member of the Faculty of Biology).

What if my degree is not, or my studies were not, exactly what is considered adequate for acceptance into the doctoral programme of the Faculty of Biology?

You may still be accepted, but you may have to do preparatory studies before full acceptance; in case of such a provisional acceptance, you would have one year to perform these studies in parallel to starting your doctoral project.

What if I am not sure whether my degree is adequate for acceptance into the doctoral programme of the Faculty of Biology?

If you are not entirely sure, it is highly recommended to send in copies of your degrees (undergraduate and Masters) and Transcripts of Records to the Doctoral Examinations Office of the Faculty of Biology for a preliminary check; however, you should only do so once you have identified a potential supervisor.

How do I find a supervisor who accepts me as a doctoral candidate?

You can look for posted vacancies and send an application to the potential supervisor; you may also contact a potential supervisor and try to convince her or him to support you in writing your own proposal for a doctoral fellowship – which of course are highly competitive.

How do I convince a potential supervisor to accept me as a doctoral candidate?

Your contact mail or letter needs to stand out from the many such mails reaching every professor weekly. It needs to be personal and specific. You need to convince the professor that she or he should be interested in you more than in anyone else who contacted her or him. Find out which subject really interests you, then find out who is doing really good research in this subject. The more the interests of the professor are matching yours, the higher the chances of getting a reply to your mail.

Can I obtain my doctorate from the Faculty of Biology even if the professor who has accepted me as a doctoral candidate is not a member of the Faculty of Biology?

In principle, yes. Ask your supervisor and ask your fellow doctoral candidates. You will need to fulfil all regulations of the Faculty of Biology, and at least one member of your doctoral committee needs to be a member of the Faculty of Biology.

The professor who has accepted me as a doctoral candidate is not a member of the Faculty of Biology but a member of the Medical Faculty or a Director of the Max Planck Institute for molecular Biomedicine in Münster; can I still get my doctorate from the Faculty of Biology?

In principle, yes. Ask your supervisor and ask your fellow doctoral candidates. You will need to fulfil all regulations of the Faculty of Biology, and at least one member of your doctoral committee needs to be a member of the Faculty of Biology.

I have studied Biology (or any other Natural Science) and I now want to obtain a doctorate, but my supervisor is a member of the Medical Faculty or of the Max Planck Institute for molecular Biomedicine in Münster; why do I need to apply with the Faculty of Biology for the doctorate?

Max Planck Institutes do not have the right to bestow a doctoral title, only Universities do; and the Medical Faculty does not have the right to bestow a doctoral title in the Natural Sciences (Dr. rer. nat.), only the Faculties of Natural Sciences (such as the Faculty of Biology, or the Faculty of Chemistry and Pharmacy) do; the Medical Faculty can bestow the doctoral title in Medicine (Dr. med.) but only to people who have studied Medicine before. (The Medical Faculty can also bestow the doctoral title in Medical Sciences (Dr. rer. medic.) to people who studied Natural Sciences before, but this title is not considered equivalent to the Dr. rer. nat. bestowed by a Faculty of Natural Sciences.)

DURING THE APPLICATION PROCESS (once you have been accepted by a supervisor)

Once I have been accepted as a doctoral candidate by a supervisor, when do I have to apply with the Faculty of Biology for formal acceptance into the doctoral programme?

You should do this as soon as possible, at the latest six months after starting to work on your doctoral project. Note that you will need to have a doctoral committee before applying with the Faculty of Biology. (Note also that you will need to be registered with the University of Münster as a doctoral student for at least six semesters (three years) before submitting your thesis.)

How do I formally apply to be accepted into the doctoral programme of the Faculty of Biology at the University of Münster?

You will first have to be accepted by the Faculty of Biology before you can formally register with the University of Münster. You will find a list of what is required for the application on the website of the Doctoral Examinations Office ("Promotionsprüfungsamt") of the Faculty of Biology. Once you have been accepted by the Faculty of Biology, you can go to the Student's Office ("Studierendensekretariat") of the University to be formally enrolled as a doctoral student. (Note that you will need to be enrolled for at least six semesters (three years) before submitting your thesis.)

Which documents to I need for the application to be accepted into the doctoral programme of the Faculty of Biology? at the University of Münster?

You will find a list of what is required for the application on the website of the Doctoral Examinations Office ("Promotionsprüfungsamt") of the Faculty of Biology. The main items are: 1) copies of your undergraduate and Masters certificates, 2) a current CV, 3) acceptance of supervision by a doctoral committee.

How do I find the members of my doctoral committee?

Your doctoral committee will need to consist of three professors, one of them your supervisor. At least two of the members need to hold a doctoral title from a Natural Sciences Faculty (Dr. rer. nat. or equivalent), and at least one of the members needs to be a member of the Faculty of Biology (the "Coordinating Member"). Ask your supervisor or ask your fellow doctoral candidates for suitable professors whom you might approach to become members of your committee.

What are the duties of the members of my doctoral committee?

The members of your doctoral committee are supposed to support your doctoral project by regularly (at least once a year) discussing with you the progress you made so far, and the plans for the work ahead. Therefore, it is a good idea to select experts covering different aspects of your planned work. In particular, it might be useful to have members with expertise which complements that of your supervisor. Typically (but not necessarily), two of the members (i.e. your supervisor and the second member) will be the evaluators of your thesis and its defence.

Who is the "Coordinating Member" in my doctoral committee and what are her or his duties?

If your supervisor is a member of the Faculty of Biology, she or he is the Coordinating Member. If your supervisor is not a member of the Faculty of Biology, at least one of the other members needs to be. This member (or one of these members) will be the Coordinating Member. She or he is responsible to make sure that the rules of the Faculty of Biology are met. She or he will eventually have to issue a certificate stating that you fulfilled all requirements of your doctoral studies (in most cases, this certificate will be issued by your Structured Doctoral Programme on behalf of your Coordinating Member), including your teaching duties. You will need this certificate when submitting your thesis.

One of my potential committee members is not a member of the University of Münster, can she or he nonetheless be a member of my committee?

Definitely, as long as she or he is a professor at a University (including Universities of Applied Sciences, "Fachhochschule"). External members are not mandatory, but highly recommended.

One of my potential committee members is not a professor, can she or he still be a member of my committee?

In exceptional cases, this might be possible upon application to the Doctoral Examination Board ("Promortionsausschuss") which might decide that the qualifications of the potential committee member are equivalent to those of a professor ("Habilitation"). In even more exceptional cases, a person might become third member of a doctoral committee without having equivalent qualifications, e.g. if the doctoral project is performed in close collaboration with that person (e.g. from a company); in that case, this member cannot be an evaluator of your thesis.

Can all three members of my doctoral committee come from the same institute?

Yes, this is possible, though it is not normally recommended, because the expertise of the members of your committee should be broad in order to best support your doctoral project. Importantly, all members must be formally independent of each other.

When do I have to present the signed list of my committee members to the Doctoral Examinations Office?

At the same time when applying for acceptance into the doctoral programme of the Faculty of Biology, i.e. within the first six months after starting work on the doctoral project.

Can I change the composition of my doctoral committee during the doctoral studies?

Yes, this is possible upon written and justified application to the Doctoral Examinations Office, e.g. if the direction of your research has shifted.

Can I change the supervisor of my doctoral project during the doctoral studies?

Normally not. This is possible only under exceptional circumstances. If you feel that this is required (e.g. in the case of scientific misconduct or sexual harassment), please approach one of the other members in your doctoral committee, the Scientific Coordinator of your structured doctoral programme, the Chairperson of the Doctoral Examination Board, or the Ombudsperson for doctoral studies at the Faculty of Biology to discuss the situation.

When do I have to present the signed Doctoral Agreement to the Doctoral Examinations Office?

Within the first six months after starting work on the doctoral project (ideally already when you apply for acceptance into the doctoral programme of the Faculty of Biology).

I am planning to obtain a Double Degree with the Faculty of Biology at the University of Münster and another university. What do I need to do?

A double degree requires the signing of a contract between the two universities or faculties involved. This can be a lengthy process, so do start it early! Enquire with the Doctoral Examinations Office about the details.

Do special rules apply in the case of a Double Degree.

Typically yes, and these are detailed in the contract that needs to be negotiated between the two universities or faculties involved. In any case, you will need to spend at least one year at the University of Münster and at least one year at the other university. The six-semester-enrolment rule and the teaching requirements may be adjusted accordingly.

DURING DOCTORAL STUDIES

What is the mandatory cross-departmental event on good scientific practice I need to attend?

Towards the beginning of working on your doctoral project, you need to attend a one-day-workshop (or, alternatively, a 1-hour/week-event during a whole semester) on Good Scientific Practice (GSP). It needs to be an event in which doctoral candidates from different groups are involved, and which is offered either by your Structured Doctoral Programme (SP) or jointly by several group leaders from different institutes (in which case the event may need to be approved by the SP). The rationale behind this rule is that GSP is a complex issue, and it involves decisions based on values rather than simply on scientific facts. Therefore, it is important to get to know different points of view, and to begin forming your own point of view. If you do not know where to find such an event, ask the Scientific Coordinator of your SP. At the end of the event, you will receive a certificate which you will need to present when submitting your thesis.

What is the cross-departmental academic seminar I need to attend?

During your doctoral studies, you need to regularly attend a seminar that is organised by several group leaders, typically (but not necessarily) from different institutes. Typically in these seminars, external speakers will report on their recent research. Such seminar series are e.g. the Plant Biology Seminars on Tuesday afternoons, or the seminars offered by most Structured Doctoral Programmes. Depending on the rules of your SP, you may or may not have to attend its own seminar, or you may be free to find seminars of your own choice, including online seminars. Importantly, you need to

make sure that the "Coordinating Member" of your doctoral committee is aware of your attendance because she or he will have to certify that you attended at least 20 of such events during your doctoral project (of three to four years, i.e. ca. 3 per semester), and you will need to present this certificate when submitting your thesis.

How do I fulfil the requirement to assist with teaching undergraduate courses in the degree programmes of the Faculty of Biology to the extent of at least 5 SWS?

Typically, your supervisor will offer lab classes to undergraduate or graduate students in which you can easily fulfil your teaching duties (1 SWS = 1 "Semesterwochenstunde" = 1 h of teaching per week during one semester of 15 weeks = 15 h of teaching; 5 SWS = 5 x 15 h = 75 h; only the direct contact time with the students counts, not any time for preparation or evaluation). The teaching should not be the simple face-to-face, one-by-one training of a student in the lab, but should rather involve teaching a small group of students, including teaching them the theoretical background of what they are learning. This is why supervising a student during a Bachelor or Master thesis or during a Research Module ("Forschungs-Modul") does not count, while teaching in all Bachelor modules and in Advanced Modules ("Fortgeschrittenen-Modul") of our Master courses does count. (Admittedly, there is a week point here: for different reasons, such as very small size of the research group or of the lab, many Advanced Modules offered by colleagues in the Medical Faculty are in fact simply short Research Modules in which a single student is participating in the research of a doctoral student; if we follow the above reasoning, teaching in a such a module should not count, but it does count for formal reasons, because it is an Advanced Module.) If your supervisor cannot offer you a course in which you can fulfil your teaching duties, it is the responsibility of the Coordinating Member in your committee to help you find opportunities.

How do I fulfil the requirement of annual meetings of my doctoral committee?

It is your responsibility to make sure your doctoral committee meets at least once a year. If your group has a lab meeting or similar event in which the group members regularly report on the progress of their project, this is a good opportunity: invite the members of your committee to attend this seminar, and continue discussing with them after the seminar. But you can also schedule a separate meeting with just the members of your committee. (If you cannot manage to identify a time for all the members to attend, you may also – exceptionally – split the meeting and meet with one of the members separately.) The first meeting should be during the second half of the first year of working on your doctoral project. In this meeting you should convince the committee members that you have made it your own project (not just that of your supervisor) by bringing in your own ideas and plans. The meeting in the third year serves to define the plan for the final works still required before submitting the thesis. It is important to be as clear and precise as possible in order to avoid misunderstandings. Even if this may not be required by your Structured Doctoral Programme (which sets the rules for the committee meetings) it is best to fix these final works in writing and have them signed by both you and your supervisor, best also by the other members of your committee.

WHEN SUBMITTING YOUR THESIS

Is there a mandatory format for the thesis?

Only to a very limited extent. There is a set format for the cover and for the title page of your thesis, as well as for the CV. Other than that, there are no formal rules which would e.g. prescribe the font size or page margins, or a minimum or maximum of pages, or the style for citations and references. If in doubt, ask you supervisor and your second evaluator what they expect, or ask former doctoral candidates from your group.

What is the difference between a monograph and a cumulative thesis?

The monograph is the traditional form of a dissertation (doctoral thesis) in which you describe the background of your work, the experiments you have performed and the results you have obtained, and you discuss them in the framework of the relevant scientific literature, to show how your research has advanced the frontiers of knowledge beyond the state of the art. A monograph contains only your own experiments and results (of course framed by the context of the scientific field in the introduction and discussion). The monograph is a publication in itself and traditionally, was not allowed to contain any already published work. In an increasingly competitive world where rapid publication is essential, this is often no longer reasonable. Also today, research is typically done in teams, and good publications rarely contain data from a single scientist only. This is why the format of the cumulative thesis was introduced (a long time ago), in which the manuscripts and publications to which the work of the doctoral candidate contributed, are collected. In this case, your supervisor needs to explain in a separate document your intellectual and experimental contribution to each of these manuscript/s and publication/s.

What is the structure of a monograph?

The monograph is the traditional form of a dissertation (doctoral thesis). It typically contains the chapters "Introduction", "Materials and Methods", "Results", and "Discussion". This structure does not constitute a mandatory format (while the content of these chapters is mandatory). In consultation with your supervisor, you may decide to deviate from it, choosing a slightly different format (such as dividing your work into different (publication-like) chapters with their own separate introduction and discussion) but in such a case, it is highly recommended to find out with the Doctoral Examinations Office whether the alternative format will be acceptable. The chapters "Materials and Methods" and "Results" in a typical monograph contain only experiments that you have performed yourself. However, the updated new Doctoral Regulations allow you to include one or more manuscript/s or publication/s which may also contain results of others. In such a case, your supervisor needs to explain in a separate document your intellectual and experimental contribution to this/these manuscript/s or publication/s.

What is the structure of a cumulative thesis?

A cumulative thesis must start with a general "Introduction" chapter and finish with a general "Discussion" chapter, establishing the link between the at least three manuscripts and/or publications they frame. You must be first author (or shared first author) of at least one of the three manuscripts, and that one needs to be accepted for publication in a scientific journal upon appropriate peer-review. You do not need to be first author (but you need to be a co-author) in the other two manuscripts and you also do not need to provide evidence that they are accepted or even submitted for publication. One of these further manuscripts/publications may be a review article, but only if you are first author (and some further limitations exist which are given in the relevant paragraph of the Doctoral Regulations). Your supervisor needs to explain in a separate document your intellectual and experimental contribution to all manuscripts and/or publications included in the cumulative thesis.

What if I have more publications than the ones included in the (cumulative) thesis?

That is of course not a problem and you may mention them in your thesis, but they will not count towards the evaluation of your thesis.

Who is deciding whether I should submit a monograph or a cumulative thesis?

You should decide this together with your supervisor. Some supervisors have very strong convictions in favour or disfavour of a monograph or of a cumulative thesis — with good reasons. So, it is certainly a good suggestion to follow the advice of your supervisor. In the end, she or he will be one of its evaluators. But in principle, you decide. It is your thesis. Of course, you are not allowed to include an unpublished manuscript without the consent of all co-authors!

Can a manuscript or publication be part of more than one dissertation?

Yes, this is possible. In case of shared first authorship, it can even be the one already accepted first-author manuscript required for the cumulative thesis.

How can I include large data sets or videos in my thesis?

The University of Münster provides electronic storage capacity for research data (https://datasafe.uni-muenster.de/). Information is available here: https://www.uni-muenster.de/Forschungsdaten/

When can I submit my thesis?

You can submit your thesis as soon as 1) your supervisor and committee members agree that you have achieved sufficient results to significantly advance the frontiers of knowledge beyond the state of the art, and 2) you have met all requirements of your Structured Doctoral Programme. Once this is the case, you can submit your thesis and apply for its evaluation and defence.

What if I have not yet met all requirements of my doctoral studies?

If you have not yet met all the requirements of your doctoral studies as laid down in the Doctoral Regulations and specified in the Rules of your Structured Doctoral Programme, you cannot submit your thesis. Should there be reasons for not having met all requirements yet that are beyond your influence (such as due to the Corona pandemics), then it might be reasonable to enquire with the Doctoral Examinations Office whether indeed there might be an option for an exception. If you pursue your project with the aim to obtaining a double degree with another university, the contract required for such a double degree will most likely include a paragraph specifying whether there are exceptions from the general rules concerning the requirements of doctoral studies.

What if I have been enrolled as a doctoral student of the Faculty of Biology at the University of Münster for less than six semesters?

You need to be enrolled for six semesters during your doctoral studies, but you may submit your thesis at the beginning of the sixth semester. If you pursue your project with the aim to obtaining a double degree with another university, the contract required for such a double degree will most likely include a paragraph saying that you need not be enrolled at the University of Münster for the full six semesters. If in an exceptional case, your results allow you to have achieved the significant advancement of knowledge required for the awarding of a doctoral degree in less than six semesters, you may be allowed to submit earlier (but not if you have simply delayed applying for acceptance into the doctoral programme of the Faculty of Biology beyond the six initial months allowed).

Can I submit my thesis even if my supervisor says I cannot?

This would be a very unfortunate situation and one you should avoid by establishing open and trusted communication with your supervisor and your doctoral committee early on. But in principle, yes, the decision to submit the thesis is yours, not that of your supervisor. It is your doctoral project, and your doctoral title. But of course, you are aware that your supervisor will be one of the two evaluators of your thesis, and this might constitute a problem. In such a (fortunately extremely rare) case of a severe conflict between you and your supervisor, do talk to the other members of your

doctoral committee, in particular the Coordinating Member, or to the Scientific Coordinator of your Structured Doctoral Programme, or to the Chairperson of the Doctoral Examination Board, or to the Ombudsperson for Doctoral Studies in the Faculty of Biology, or to any other person in the university you trust – and do so early, when the first signs of such a conflict cannot be ignored anymore, in order to prevent an escalation of the conflict.

Which documents do I need to present when submitting my thesis?

You can find a list of the documents you need to submit in the Doctoral Regulations and on the website of the Doctoral Examinations Office. As it is a long list, it is not reproduced here.

WHEN DEFENDING YOUR THESIS

Who are the evaluators of my thesis?

Typically, these are your supervisor and the second member of your doctoral committee. Only if both reviewers grade your thesis with "summa cum laude", we will ask for third, external reviewer who will be chosen by the Doctoral Examination Board, typically selected from suggestions by your doctoral committee.

Will I have a chance to see the evaluation reports before the defence?

No, the reports are confidential. You can apply for access to these documents only after having obtained your certificates.

How long does it take from submission of the thesis to the defence?

The two evaluators of your thesis will have four weeks to write their reports, and the reports will then circulate for three weeks through all institutes of the Faculty of Biology. Then only you can have your defence. As we also need a little processing time, do plan for eight weeks from submission to defence. (This time can be shorter if your evaluators are fast and the two reports come in ahead of time.)

How much time is required between defence and conferral of the doctoral title?

We will need at least three days to finalise the certificates.

Are there fixed dates for the submission of my thesis?

No, you can submit your thesis at any time. Note though that there are fixed dates for the graduation ceremonies where the doctoral degree is formally awarded. If you submit less than eight weeks before that date, you will have to wait for the following convocation date. You can find the dates for the ceremonies on the website of the Doctoral Examinations Office.

AFTER THE DEFENCE

What is the difference between the two types of certificates ("Zeugnis" and "Urkunde") mentioned in the Doctoral Regulations?

The "Zeugnis" (certificate) is more like a transcript mentioning the grades given for the thesis by the different evaluators and for the defence, while the "Urkunde" (doctoral degree certificate) does not. You will receive the former document during the graduation ceremony, while the latter document is only given once you have published your thesis (which may happen before or after the ceremony, but not later than one year after the defence). It is this latter document which officially bestows the title Dr. rer. nat. and which allows you to bear this title.

When and how do I receive my doctoral certificates?

You will receive the "Zeugnis" (certificate, transcript) during the public doctoral graduation ceremony (possibly, in case of a *summa cum laude* and if the third, external review has not yet reached the Doctoral Examinations Office, a preliminary certificate stating that you graduated successfully, but not yet giving grades). If you already published your thesis, you will at the same time receive the "Urkunde". If not (and you have a maximum of one year to publish), you will receive the "Urkunde" (doctoral degree certificate) only later, after publication.

When am I allowed to bear the title Dr. rer. nat. (or Doctor of Philosophy (PhD) in Biology)?

You are only allowed to bear the title after you received the "Urkunde" (doctoral degree certificate), i.e. after publication of the thesis. The "Zeugnis" (certificate, transcript) alone does not yet allow you to bear the title.

When and how do I publish my thesis?

This is final frontier, and perhaps the greatest challenge on your way to a doctorate – it certainly takes curiosity and stamina to find out how this is done. A short summary: If most of the results described in your thesis have already been published in scientific journals (e.g. typically in the case of a cumulative thesis), you need to deliver four hard copies of your thesis to the university library, along with the declaration signed by your supervisor that she or he agrees to the publication of the thesis in its current form (first signature), and that the essential parts of the thesis have already been published (second signature), giving the details of these publications. You can find the form for this declaration on the website of the Doctoral Examinations Office. If the results described in your thesis are not yet published (e.g. typically in the case of a monograph), you need permission from your supervisor on the same form mentioned above (first signature) to publish the thesis in its current form, and then you need to either submit ten hard copies of your thesis to the university library, or publish the thesis electronically, on the miami server of the university library, and submit two hard copies to the library. You will receive a confirmation from the library which you will have to present to the Doctoral Examinations Office. All of this can only happen after the defence, and ideally before the public doctoral graduation ceremony (at the latest one year after the defence). Only after publication of the thesis in one of the above ways will you receive the "Urkunde" (doctoral degree certificate) which formally bestows the title to you.

Do I have to appear in person to obtain the doctoral certificates or can I also obtain them by mail?

You will have to appear in person because you will have to make a solemn pledge on respecting scientific integrity to the Dean of the Faculty of Biology. Only in exceptional circumstances, you may do so outside of the public graduation ceremony.