

**Implementing Regulations According to § 8 (2) of the Doctoral Examination
Regulations (PromO)
of the Faculty of Biological Sciences,
Friedrich Schiller University Jena**

Legal note: This English version is for your information only. The legal basis for a Course of Examination of Doctoral Candidates is the original German text.

1. General Guidance on the External Layout of the Dissertation

The rules formulated in this section apply to both publication-based and continuously written (monograph-style) dissertations.

1.1 General

- a. The thesis must comply with good scientific practice according to DFG guidelines. In case of questions regarding the citation of, or reference to, other authors' results, the supervisor or, if applicable, the Dean's Office must be consulted.
- b. The format of the dissertation paper is A4.
- c. The dissertation may be printed on one side or on both sides and must be firmly bound. In addition, the dissertation must be submitted in electronically searchable form as a PDF on a digital storage medium. This electronic version of the dissertation is deposited in the Dean's Office for possible plagiarism checks.

1.2 Structure and layout

- a. The design of the title page is governed by Appendix 1 to these implementing regulations. It should be noted that the proposed reviewers of the thesis should not yet be named in the version of the thesis submitted at the opening of the doctoral examination procedure, as these will only be determined by the Faculty Council after submission.
- b. The introduction should not be less than five pages, a general guideline is 10 pages. It should also introduce the topic to readers who are not familiar with it; at the same time, the current state of the literature on the topic should be reported for experts familiar with the field and the aim and task of the thesis should be outlined.
- c. Citation should preferably be by name (e.g. "Miller et al., 2000; Smith, 2002"), but numerical citation is also possible (e.g. "[4, 7-9]").
- d. An abstract in both English and German is required in every dissertation.
- e. The "theses" to be submitted in accordance with § 5 PromO with the application for the opening of the doctoral procedure are the 3-10 core statements of the dissertation that have contributed to the development of the subject area as well as, if applicable, further hypotheses that can be derived from the work. They serve as a basis for the critical discussion during thesis defense. The theses should be organised as numbered simple statements and printed on one A4 page.

2. Regulations for Publication-Based Dissertations

2.1. Definition

In a publication-based dissertation the results of the doctoral thesis are not presented in the form of a continuous writing (thesis; monograph), but in the form of a collection of usually several publication manuscripts. The doctoral regulations only provide for these two forms of dissertation, but not for a mixed form. Unpublished data can be included in a publication-based dissertation in manuscript form. Further material from the doctoral thesis that is not intended for publication and is not available in manuscript form can be included in the thesis by mentioning it in the appendix.

The following applies to a publication-based dissertation:

- a. At least one original paper based on the doctoral candidate's own research results (i.e. not a review article) must have been accepted for publication in a peer-reviewed scientific journal with the doctoral candidate as first author. Shared first authorships are permitted.
- b. Other manuscripts included in the dissertation may already have been published, accepted for publication, submitted for peer review to journals or to be submitted. The additional manuscripts may be original works, review articles or book contributions.
- c. In rare cases, the dissertation may be based on a single, outstanding original publication with the doctoral candidate as first author.
- d. Manuscripts in English and German may be mixed.
- e. The manuscripts must be closely related in subject matter and connected by an overarching research question identified by the dissertation topic.
- f. Publications that primarily represent the results of the final thesis of a study programme of the doctoral candidate preceding the doctorate cannot be part of a publication-based dissertation.

2.2. Formal Structure

- a. A publication-based dissertation must be submitted in bound form with all parts copied to DIN A4 page format regardless of the print format of the original publications.
- b. The pages of the dissertation must have consecutive numbering, which must be printed in addition to the manuscript's own page numbering in the case of publication-based manuscripts.
- c. A publication-based dissertation consists of the following parts:
 - i. Cover page

The first page shall constitute a cover page in accordance with Appendix 1 to these Regulations.
 - ii. Table of contents

The page numbering of the table of contents refers to the consecutive page numbering in the dissertation. Included manuscripts are listed like chapters; the page numbering in the table of contents refers to the overview page preceding the respective manuscript (see also point v.).
 - iii. Introduction

The introduction refers to the entirety of all manuscripts and is of great importance for the review of a publication-based dissertation. It must make clear which overarching research question connects the individual manuscripts and which aspects are to be covered by each manuscript. The introduction should not be less than five pages.

iv. Overview of the manuscripts

Following the introduction, an overview of all manuscripts that are part of the dissertation should be given. In addition to the usual bibliographical data, a short summary (2-3 sentences) should be provided for each manuscript, showing its contribution to the overall research question. If the manuscripts have not yet been published, this should be indicated.

v. Manuscripts

Each manuscript included in the publication-based dissertation should be preceded by an overview page in accordance with Appendix 2 (Form 1) of these implementation regulations, which contains the necessary bibliographical information and, in the case of manuscripts with several authors, statements on the contribution (in percent) of the authors (in particular of the candidate) to the publication (see also Chap. 2.3.).

Manuscripts included in the dissertation that have already been published must fully correspond to the published original publication in form and content: they should appear as a photocopy of the published original publication in the dissertation. Manuscripts in preparation are to be printed in manuscript form.

vi. General discussion

The general discussion refers to the totality of all manuscripts and chapters. It must bring together the individual results of the manuscripts and coherently present what the manuscripts contribute to answering the question set by the topic of the dissertation and formulated in the introduction. Other possible aspects of the final discussion are the methodology used and the contribution of the work to the advancement of science. The overall discussion should not be less than five pages.

vii. Summary in English and German

An abstract in both English and German is a normal part of every dissertation. The summary must also present the main points of the introduction and the overall discussion.

viii. Bibliography

The bibliography contains all publications cited in the introduction to the dissertation (Section 2.2 c iii) and the final discussion (Section 2.2 c vi).

ix. Declaration on honour

A declaration on honour must be made in accordance with the requirements of the doctoral regulations (§ 5 Para. 1, No. 4). The declaration on honour must be signed *in the original* in each copy of the printed dissertation.

x. CV in tabular form

A tabular *curriculum vitae* shall provide an overview of the scientific career of the candidate.

xi. Appendices

- The appendix to the dissertation should contain documentation of the candidate's

own contributions in accordance with section 2.3 (point b.) of these implementation regulations.

- The dissertation may also be supplemented in the appendix by additional documentation material (e.g. original data, statistical test results, model structures, maps, etc.). Appendices (“supplements”) from publications or unpublished manuscripts included in manuscript form belong to these manuscripts and must be included directly after the respective manuscript and not in the appendix of the dissertation itself.
- Manuscripts may not be included in the dissertation as appendices. If manuscripts fulfil the requirements in Section 2.1. e., they may only be included in the results section (see Section 2.2. c. v.).

2.3. Information on the personal contribution

In the case of publications with several authors, information on the doctoral candidate's own contribution is critical for the evaluation of the dissertation. The own contribution should be stated in two ways at the same time:

- a. On the overview page before each of the manuscripts included in the dissertation: Indication of any percentage contributions by authors in accordance with Form 1 in Appendix 2 to these Implementing Regulations.
- b. In the appendix to the thesis: details of the doctoral candidate's contributions to original work by declaration of contributions to individual figures using Form 2 in Appendix 2 to these Regulations.

In addition to being incorporated into the dissertation, forms 1 and 2 must also be signed separately from the original dissertation and submitted to the Dean's Office in a version countersigned by the supervisor (member of the Faculty of Life Sciences). The forms included in the dissertation do not have to be signed.

2.4. Publication of publication-based dissertations

A publication-based dissertation should be published in the form in which it was submitted for review. Changes in the dissertation compared to the version submitted for review must have been commissioned by the doctoral committee - in the form of conditions. The fulfilment of such conditions must be confirmed to the Dean's Office by the chairperson of the doctoral committee prior to publication.

2.5. Verification of compliance with the implementation regulations

The doctoral candidate is responsible for compliance with the implementation regulations. The proper form of a publication-based dissertation is checked by the vice dean before the procedure is opened.

3. Appendices

Appendix 1: Cover page of the dissertation

Appendix 2: Forms for the presentation of the own contribution to manuscripts in publication-based dissertations

Appendix 1

Cover Page of the Dissertation

The following information must appear on the cover page in the order given here: (i) title of the dissertation, (ii) academic degree sought ("Dr. rer. nat" or "PhD"), (iii) first name and surname, including previous academic degrees, (iv) date and place of birth.

Depending on whether the dissertation was written in German or English and whether the title "doctor rerum naturalium" or "Doctor of Philosophy" is sought, there are four possible variants of title pages.

Two of the variants are listed as examples on the following pages.

Titel der Dissertation

Dissertation

**zur Erlangung des akademischen Grades eines
„doctor rerum naturalium“ (Dr. rer. nat.)¹**

**vorgelegt dem Rat der Fakultät für Biowissenschaften
der Friedrich-Schiller-Universität Jena**

von²

geboren am in.....³

¹ alternativ: „Doctor of Philosophy“ (PhD)

² bereits erworbene akademische Grade, Vor- und Zuname

³ Geburtsdatum und -ort

Title of Dissertation

Dissertation

in Partial Fulfilment of the Requirements for the Degree of

“Doctor of Philosophy” (PhD) ⁴

**Submitted to the Council of the Faculty of Biological Sciences
of Friedrich Schiller University Jena**

by ⁵

born on in ⁶

⁴ Alternatively, if the degree of a “Dr. rer. nat.” is pursued: **“doctor rerum naturalium” (Dr. rer. nat.)**

⁵ First and last name, including previously achieved academic degrees

⁶ Date and place of birth

Appendix 2

Forms for the presentation of the own contribution to manuscripts in publication-based dissertations

Form 1

This form must be completed for each of the manuscripts included in the cumulative dissertation and signed by the candidate and supervisor (member of the Faculty of Biological Sciences).

(i) One copy of the completed and signed form is submitted together with the original dissertation.

(ii) A copy of the completed form should appear in the publication-based dissertation directly in front of the respective manuscript. Signatures may be omitted from this bound-in version.

(iii) Instructions for completing the table in Form 1:

Authors should be listed by name if they contribute 20% or more to one of the given categories; the contribution of other authors, if any, should be summarised under "Other". The total in each category must therefore add up to 100%.

If one of the specified categories does not apply to the publication, the column can be deleted.

The category "Provision of material" refers to material essential for the respective work that cannot be simply purchased from regular suppliers, such as certain biological material or chemical compounds not freely available.

Form 2

This form should be completed for each original publication and attached to the dissertation as an appendix. Alternatively, the description of the own contribution according to chapter 2.3.b. can be made by free text.

(i) One copy of the completed and signed form is submitted together with the original dissertation.

(ii) A copy of the completed form should appear in the publication-based dissertation as an appendix. The signatures may be omitted from this bound-in version.

FORM 1⁷

Manuscript No. (sequence number in the dissertation)

Manuscript title:

Authors:

Bibliographic information (if published or accepted for publication: Citation):

The candidate is (Please tick the appropriate box.)

First author, Co-first author, Corresponding author, Co-author.

Status (if not published; "submitted for publication", "in preparation".):

Authors' contributions (in %) to the given categories of the publication

Author	Conceptual	Data analysis	Experimental	Writing the manuscript	Provision of material
<i>Others</i>					
Total:	100%	100%	100%	100%	100%

Signature candidate

Signature supervisor (member of the Faculty)

⁷ The signatures must be original only in the completed form to be submitted separately to the Dean's Office. The signatures and signature fields are not necessarily required in the version included in the dissertation.

Instructions on how to fill in the table are provided in Appendix 2 of the Implementing regulations.

FORM 2⁸

Manuscript No. (sequence number in the dissertation)

Short reference [e.g.: Müller et al (2020), J. Biol. Chem.]

Contribution of the doctoral candidate

Contribution of the doctoral candidate to figures reflecting experimental data (only for original articles):

Figure(s) # ____*	<input type="checkbox"/>	100% (the data presented in this figure come entirely from experimental work carried out by the candidate)
	<input type="checkbox"/>	0% (the data presented in this figure are based exclusively on the work of other co-authors)
	<input type="checkbox"/>	Approximate contribution of the doctoral candidate to the figure: ____% Brief description of the contribution: (e.g. "Figure parts a, d and f" or "Evaluation of the data" etc.)

* Can refer to more than one fig. if the answer is the same

(Add more table boxes depending on the number of figures)

Signature candidate

Signature supervisor (member of the Faculty)

⁸ The signatures must be original only in the completed form to be submitted separately to the Dean's Office. The signatures and signature fields are not necessarily required in the version included in the dissertation.