

Information sheet on the requirements of cumulative doctoral theses, in particular concerning the publication quality

According to the Senate decision of 14 September 2010 and 12 April 2011 all newly submitted cumulative doctoral theses at UMIT TIROL shall be assessed by the Senate Commission for Research Evaluation (Arbeitsgruppe Forschungsevaluierung – AGFE) with regard to scientific quality standards.

The focus of this assessment is on quality, subject-specific relevance and coherence of the publications, as stated in the Doctoral Degree Regulations for the Dr. phil. program¹ and the Implementation Rules for the Doctoral Degree Regulations for the Dr. techn. program²

1 Quality requirements for publications used in cumulative doctoral theses

The Doctoral Regulations Dr. phil. stipulate³ that the publications integrated in cumulative doctoral theses are scientific publications accepted by a “subject-specific renowned publication organ through a peer-review process”. Regardless of the individual wordings, the requirements are the same for all Doctoral Regulations at UMIT TIROL.

In the following, the two requirements “peer review” and “renowned publication organ” will be described in detail.

1.1 Peer review process

Peer review is understood to be the following process, in accordance with international standards:

1. A manuscript is submitted to a journal by the (corresponding) author.
2. *Optional:* The editor pre-assesses the manuscript, rejecting manuscripts of unsuitable content or which contradict the form requirements.
3. The manuscript is sent to at least two reviewers. *The acceptance of a manuscript based on only one reviewer report shall be regarded as deficient peer review, whereas a rejection may sometimes occur due to one clearly negative reviewer report.*

The reviewers normally remain anonymous (in exceptional cases their identity may be disclosed in agreement with the reviewers after the end of the review process, e.g., for

¹ Doctoral Regulations for obtaining the academic degree Doctor of Philosophy (Dr. phil.) of September 12, 2023, QM Manual 05.G.1, §76 (76)

² Implementation Rules for the Doctoral Degree Regulations for obtaining the academic degree “Doctor of Technical Sciences (Dr. techn.)” of September 12, 2023 (QM Manual 05.G.9), Annex 1

³ Doctoral Regulations Dr. phil. of September 12, 2023, QM Manual 05.G.1, §7 (6)

personal acknowledgements). *Optionally*, the author's identity is concealed towards the reviewer (double-blind peer review).

4. Based on the reviewer reports, the editor decides whether to accept the manuscript, to accept it subject to required changes, to return it to the authors for revision or to definitively reject it. This decision is communicated to the corresponding author together with the reviewer reports ("decision letter").

In the interest of transparency, it is desirable that the reviewer reports are made available to the authors in their entirety and not just in excerpts or paraphrased by editors.

5. If authors were asked for a revision, the revised version shall usually be resubmitted to the editor, together with a report detailing all modifications ("response to reviews"). In case of minor changes, the editor decides directly on acceptance or rejection of the manuscript. Otherwise, a new review will be carried out (by the same or different reviewers).

Only journals which comply with this procedure – with at most minor deviations – are eligible for cumulative doctoral theses according to the Doctoral Regulations!

1.2 Recognised publication organ

Generally, a publication organ is a journal, at best a series, at best an online publication with archival character (i.e., the permanent availability of articles needs to be guaranteed).

The publication organ is recognised if it is established and received within the scientific community of its subject area. To assess this, multiple aspects will have to be balanced in each individual case. However, essential minimum requirements are considered to be:

- For print media, at least four issues should have been published, with the first issue dating back at least one year. For online media, a comparable number of papers should have been published, and the publication period shall also be at least one year.
- At least one-third of the published articles should not be authored or co-authored by members of the Editorial Board (at the time of review of the article).

Further indicators taken into consideration are:

- Orientation towards scientists as target audience (at least one of several target audiences)
- Publication by a renowned international scientific publisher
- Publication by a renowned scientific association
- Indexing in major databases like SCI, SSCI, PubMed, Scopus, CINAHL, Embase; Impact Factor. (Journals with SCI listed Impact Factor will be usually accepted)
- Acceptance rate of submitted articles below 50 % (reliable data must be available)

To unequivocally prove sufficient independence of the review also externally, AGFE requires furthermore:

- The chief editor shall not be affiliated with UMIT TIROL.

In case of doubt, the fulfilment of the criteria at the time of the review as well as the acceptance of the article is decisive.

1.3 Subject-specific relevance and coherence

Subject-specific relevance means that articles are published in journals in which articles of comparable thematic orientation appear regularly. Only in this way it can be expected that articles are both professionally reviewed and recognised by the scientific community of the appropriate field.

In view of a good visibility of scientific achievements, it is recommended to spread the minimum publication output – especially in the case of journals classified C or D⁴ – over several journals, if this is not opposed by content-related reasons. In the doctoral program Dr. techn., the distribution of publications to at least two journals is mandatory.⁵

In the case of doctoral projects with interdisciplinary topics it might be possible to publish articles in journals of several related fields. It may occur that the publication is peripheral to the range of topics of all contemplable journals. In such cases, attention should be paid to the fact that the publications used for the cumulative doctoral thesis cover the respective single disciplines as best as possible in their entirety. In this context, the one-sided focus of publications in one discipline should always be critically questioned.

In the case of topics that focus on a specific scientific field but also touch on related fields, publications in publication organs of these related fields are welcome. However, this should not lead to no publications being placed in the core discipline of the thesis at all.

Coherence means that the individual published articles add up to an overall project. If the publications from the ongoing work result from a clearly defined research project, the coherence will be naturally given. Besides, it is also the purpose of the unifying text to clearly outline the coherence.

2 Documentation

For all articles included in a cumulative doctoral thesis the following documentation is necessary:

In the doctoral thesis:

Accurate and complete bibliographic information (authors, title, journal title, volume/issue, pages)

Bibliographic information for all included articles must be compiled on a page included in the dissertation.

As annex:

Complete written communication dating from submission to acceptance (cover letter, decision letter with reviewer reports, response to reviewers).

These supplementary documents are not supposed to be included in the dissertation thesis but handed in separately. They are available to AGFE but become part neither of the documents provided for inspection by professors, lecturers and senate members in the doctoral procedure, nor of the dissertation archived in the library.

⁴ See Section 3 and Annex 1 for details on the scheme for the classification of journals

⁵ Implementation Rules for the Doctoral Degree Regulations for obtaining the academic degree "Doctor of Technical Sciences (Dr. techn.)" of September 12, 2023 (QM Manual 05.G.9), Annex 1

3 Classification of journals

AGFE classifies journals according to the quality and transparency of their peer review process and their international visibility. The classification is based on a scheme with categories A–F, whereby A is used for journals with excellent quality and international visibility and F represents journals without sufficient peer review. The criteria for the classification are explained in Annex 1.

The classifications emerged from decisions by AGFE to date are compiled in Annex 2. This list is continuously supplemented with further journals. Existing classifications are updated if new information becomes available.

Above all, the classifications in Annex 2 are intended to be minimum ratings: if a journal is classified as C, AGFE has assessed the criteria for category C and considers them to be fulfilled, but it does not imply that the criteria for category B are certainly not fulfilled.

4 Pre-inquiry

Publication plans for a cumulative doctoral thesis should be communicated to AGFE as soon as possible. Contact with AGFE should be established by the supervisor or be coordinated with the supervisor.

The pre-inquiry does not replace the AGFE vote in the doctoral procedure, but it provides legal certainty: information issued by AGFE – for the specific doctoral thesis – is binding, i.e., AGFE considers itself bound to its own statements, as far as the aspects to be evaluated could be assessed at the time of the inquiry. Generally, this will imply that the journal can be evaluated in terms of its peer review process. Subject-specific relevance and coherence of the publications cannot be assessed conclusively without detailed knowledge of the content and will therefore mostly be left to the assessment in the doctoral procedure; of course, AGFE tries to give advice also in this respect.

As a rule can be considered:

1. Publications in journals classified as category D or higher⁶ will be accepted as peer reviewed.

More restrictive requirements may apply depending on the applicable Doctoral Regulations. Currently, this applies to the doctoral program Dr. techn., where a minimum classification of B or C is required.⁷

2. Articles in journals classified as category E or F cannot be accepted.

⁶ Classification according to the categories of Annex 1 in the most current AGFE list at the time of submission, or a later version of this list.

⁷ Implementation Rules for the Doctoral Degree Regulations for obtaining the academic degree “Doctor of Technical Sciences (Dr. techn.)” of September 12, 2023 (QM Manual 05.G.9), Annex 1: two category B publications or better and one category C publication or better.

Annex 1: Scheme for the classification of journals for cumulative doctoral theses

Annex 2: List of journals

Hall in Tirol, 3 April 2023

Martin Welk

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