

## Handout on Theses and Dissertations

The close collaboration between the Technical University of Munich (TUM) and industry, the commendable desire of industry to contribute to the scholarly education of students and doctoral candidates, and the motivation that students and doctoral candidates gain from working on scholarly problems either arising from or applied to a practical environment, have led to the situation that at the TUM a large number of *Diplom*, bachelor's and master's theses (hereinafter "thesis"/"theses") and dissertations are assigned, whose topics have been proposed by industry and/or have been developed in industrial corporations on the basis of corporation-specific tasks and data.

The assignment, supervision and preparation of these scholarly projects raises a number of legal and administrative questions that are of importance to all parties involved.

### I. General Legal Basis

#### 1. Thesis requirements

The thesis is a university examination. It is a module and part of the final examination of each program. For a thesis to be acknowledged as an examination, it must strictly comply with the requirements for theses set out in the program-specific Academic and Examination Regulations and the Bavarian Higher Education Act (*BayHschG*), including, but not limited to, the following:

- Pursuant to § 18 (4), sentence 3 of the General Academic and Examination Regulations for Bachelor's and Master's Programs at the Technical University of Munich (*APSO*)\*, the consent of the chairperson of the Examination Board is required if the thesis is to be written at an institution other than the university. In such a case, the thesis must also be supervised by a TUM examiner. The students may propose topics, however, professors are under no obligation to accept proposed topics.
- The thesis supervisor will be solely competent and responsible for determining the precise topic of the thesis, as well as the entire formal process of this part of the final examination. Good collaboration among the thesis supervisor, the industrial corporation and its on-site supervisor is essential.
- Neither an industrial corporation nor any other person or institution outside the university may be granted the right to exert any influence on the topic or content of a thesis during its completion. Any proposals and initiatives to this effect will be considered noncommittal in terms of examination law for both supervisors and candidates. Completion of the thesis must be feasible within the time limit stipulated in the examination regulations.
- Pursuant to the *APSO*\*\* , only students have the right to inspect the examination documents prepared in connection with the grading of the thesis (expert opinions, notes, comments, etc.). The industrial corporation may neither influence the grading nor inspect the examination documents.

- For justified competition and market policy reasons, industrial corporations require students writing their theses at the corporation's premises to keep any internal and corporation-specific data confidential. Students may comply with such confidentiality obligations provided that they are able to work on their topic without restrictions and comply with examination requirements, i.e. that they may complete their thesis as a university examination in a timely manner and submit it to the office responsible for theses at TUM.

## 2. Dissertation requirements

Dissertations are also university examinations. When writing a dissertation, students must comply with the requirements set out in the Regulations for the Awarding of Doctoral Degrees (*PromO*) and the Bavarian Higher Education Act (*BayHschG*).

As a rule, the requirements for theses described above shall apply accordingly. As set out in the Regulations for the Awarding of Doctoral Degrees (*PromO*), the dissertation must always be devoted to a field that is taught by a professor at TUM. External dissertations may also be submitted. However, those dissertations must be discussed with a TUM professor prior to submission and be supervised by a TUM professor. Examination documents relating to dissertations may only be inspected by doctoral candidates.

Unlike theses, dissertations are not subject to a time limit for completion. In addition, after completion of the oral examination, doctoral candidates are required by examination laws to make the authorized version of the dissertation available to the scholarly public.

## II. **Supervision of Theses**

The supervision of theses is an essential task of the university and part of the professional duties of professors appointed by the university.

1. For this reason, supervisors of theses/dissertations are not permitted to
  - conduct the supervision as outside professional activity or
  - demand, accept or accept a promise of remuneration for their own or the university's benefit.
2. For the assignment and supervision of theses/dissertations, supervisors may consider accepting remuneration from industrial corporations only if they, completely independent from the supervision, provide services of their own and the remuneration for such services cannot be considered (subsequent) compensation for the supervision. This may be the case where, for example:
  - corporation-specific data and facts are evaluated and assessed by professors or academic staff members at the explicit, documented request of the industrial corporation;

- use or exploitation of equipment, software and/or know-how of the Chair/Institute concerned is necessary for the use of the results developed in the course of the thesis/dissertation;
- the external assessment causes additional time and expenses (additional travel expenses incurred for visits to the industrial corporation, costs of attending conferences, purchase of special literature, etc.).

Different from the above are research projects funded by public or private funds, as well as research and development projects with industrial corporations under which theses/dissertations are developed, or the employment of students and/or doctoral candidates at TUM is financed by these funds. In both cases, the funding/remuneration is not intended for the supervision of the thesis or dissertation, but for the conducting of research and/or the services and results provided or developed by members of the university.

3. In view of this background, the following regulations shall apply:

- Professors who supervise theses/dissertations should only accept proposals for topics that they are able to supervise within the scope of their specific field of expertise, i.e. within the scope of their statutory duties, and for which the Chair/Institute concerned will not have to provide resources in excess of the usual time and effort necessary for the supervision of theses/dissertations. External theses/dissertations will be graded based on their scholarly quality alone, without regard to the corporation-related data used in the thesis/dissertation, i.e. the supervisor does not provide consultancy services that would require any remuneration.

It is recommended that these principles be communicated early enough, so that a refusal of a proposal for an external thesis/dissertation not complying with said principles is foreseeable and comprehensible. When the topic for an external thesis/dissertation is formally assigned, both students/doctoral candidates and the industrial corporation should explicitly be informed of these criteria for supervising and grading theses/dissertations.

- In all other cases, the terms and conditions for a collaboration beyond the supervision of theses/dissertations must be set out in an agreement between TUM and the industrial corporation.

When entering into such agreements, the following principles must be observed:

- Parties to the agreement shall be TUM and the industrial corporation.
- The agreement must include the requirements set out in Article I.
- The agreement must specify the services to be provided to the industrial corporation and the remuneration to be paid to TUM.

The amount of the remuneration will depend on the extent to which TUM facilities, know-how of the Chair/Institute and Chair- or Institute-specific software are employed, as well as the time and effort required for the assessment of the corporation-specific data and facts on which the thesis/dissertation is based.

In compliance with the *Framework for state aid for research and development and innovation*, the remuneration payable to TUM must be calculated on the basis of market prices or market conditions. The calculation must be evidenced, using the simplified cost accounting scheme (*Vereinfachtes Verfahren einer Auftragskalkulation*) whose use is mandatory in order to comply with the requirements of the Bavarian State Ministry of Education, Science and the Arts. This simplified scheme is provided at <https://portal.mytum.de/kompass/forschung/EU-Gemeinschaftsrahmen> in the TUM services directory (*Dienstleistungskompass*).

Remuneration for the supervision of theses/dissertations must not be part of the agreement.

- These agreements must not give the impression that they were entered into and remuneration is paid for the purpose of supervising a thesis/dissertation. This is indispensable to protect the supervisors from being suspected of a criminal offence pursuant to §§ 331 et seq. of the German Criminal Code (*StGB*) (taking or giving bribes, etc.).

For this purpose, the TUM model agreement for research projects with industry may be used as a sample agreement.

### III. Copyright; Protection of Inventions

#### 1. Authorship of a thesis/dissertation

Pursuant to § 7 of the German Copyright Act (*UrhG*), the creator of a work is its author. Therefore, students/doctoral candidates are the creators and thus authors of their theses/dissertations.

The copyright to preparatory work on which the theses/dissertations are based will, of course, remain with the authors. Where necessary, this should be documented in writing.

#### 2. Co-authorship

Any **co-authorship** rights of the supervisors **shall be excluded** as a result of the requirement for each student/doctoral candidate to perform his or her own work on the thesis/dissertation topic, as set out in the General Academic and Examination Regulations for Bachelor's and Master's Programs at the Technical University of Munich (*APSO*) and the Regulations for the Awarding of Doctoral Degrees (*PromO*). Any contributions in the form of suggestions/ideas will not have any effect on copyright ownership and will by no means create co-authorship rights. In addition, any supervisory activity that would qualify as a relevant contribution in terms of copyright is not consistent with the nature of a thesis/dissertation as an examination requirement.

#### 3. Copyright Protection

Protected by copyright is the concrete form of the work, i.e. the theses/dissertations as linguistic works as such, as well as their scholarly presentation in tables, graphs, designs, drawings, etc.

However, any scientific findings and theories developed under the thesis/dissertation are not protected by copyright. Where it is intended to publish these findings or theories in another scholarly work, it is essential to properly cite their source, in compliance with good scientific practice. This also applies to scholarly work that is not published.

#### 4. Rights of exploitation and use

Where the authors are not employed by TUM, the rights of exploitation and use of the theses/dissertations belong exclusively to the students/doctoral candidates as authors of the works. The university or third parties may acquire rights only if granted by the authors. The authors are not obligated to grant rights of exploitation or use. Therefore, students/doctoral candidates may neither offer any rights nor be asked to do so prior to commencement of the examination process.

Pursuant to the statutory examination regulations, TUM is entitled to the original of the thesis/dissertation. This entitlement, however, only extends to the **tangible ownership rights to the work** as such (for example, to the model, plans, paper, etc.) and their use for the purposes set out in the General Academic and Examination Regulations for Bachelor's and Master's Programs at the Technical University of Munich (*APSO*) and the Regulations for the Awarding of Doctoral Degrees (*PromO*). Attention must be paid that, in particular in the case of online publications of theses, approval of the authors is required, as they have the right of first publication.

In case of theses/dissertations in collaboration with industrial corporations, students/doctoral candidates usually enter into an agreement with the industrial corporation under which rights of use are granted to any rights emerging in the process of working on the thesis/dissertation.

As a result of the statutory examination rights governing the relationship between the university and the students/doctoral candidates, agreements to this effect with the university must not be entered into generally, but in individual cases only where the university has legitimate rights in being granted rights of use. The granting of rights must be limited to the extent necessary; as a rule, the students/doctoral candidates must retain **nonexclusive rights of use for private purposes**. In the case of theses/dissertations in collaboration with industrial corporations, any granting of rights will, moreover, be limited by the requirements of the industrial corporations.

#### 5. Inventions

Any rights to inventions shall belong to the inventor(s). The sole authorship of the students/doctoral candidates in their works does not in all cases preclude co-inventorship of the university supervisors.

Inventions/co-inventions of TUM employees are subject to the German Employee Inventions Act (*ArbErfG*). Since students/doctoral candidates are not employees of TUM, they, as independent (co-)inventors, have the rights to these inventions. This does not apply, however, if the students/doctoral candidates are employees of TUM and the inventions have been created by the students/doctoral candidates as part of their duties under the employment contract.

In the case of theses/dissertations in collaboration with industrial corporations, students/doctoral candidates will, where inventions are concerned, as a rule also enter into an

agreement with the industrial corporation under which they may grant rights emerging from the work to the industrial corporation.

However, as a result of the statutory examination rights governing the relationship between the university and the students/doctoral candidates, agreements to this effect with the university must not be entered into generally, but in individual cases only where the university has legitimate rights in being granted rights of use. The granting of rights must be limited to the extent necessary; as a rule, the students/doctoral candidates must retain **nonexclusive rights of use for private purposes**. In the case of theses/dissertations in collaboration with industrial corporations, any granting of rights will, moreover, be limited by the requirements of the industrial corporations.

#### IV. Information for Students/Doctoral Candidates

##### 1. Entering into agreements with industrial corporations

When writing external theses/dissertations, students/doctoral candidates are, as a rule, presented with contracts under which the industrial corporation sets out the conditions for the students'/doctoral candidates' positions within the corporation's organizational structure, the confidentiality of the corporation's internal and proprietary data, intellectual property rights, rights of exploitation or use, liability and any allowance to be paid, if applicable. These contracts are private contracts that cannot be reviewed by the TUM Legal Office. However, for their own protection, students/doctoral candidates should review their contracts, in particular with regard to compliance with the requirements set out in Art. I and the issues set out below:

- Any relationship with the industrial corporation, both in terms of subject and time, in excess of the period for writing the thesis/dissertation should be thoroughly examined. Such a relationship might limit or impair
  - the student's/doctoral candidate's choice of job opportunities after completion of his or studies/doctoral program;
  - the commercial exploitation of results, for example, in connection with intellectual property rights or copyrights;
  - the further development of the topic or its broader discipline (for example, working on a dissertation after completion of the thesis); problems may arise, for example, where a student/doctoral candidate is obligated to offer or grant the industrial corporation rights of use to any further developments based on the thesis, or work on further developments only if approved by the industrial corporation.
- The students/doctoral candidates should thoroughly examine whether or not they can comply with the industrial corporation's requirements, in particular, with regard to granting rights of use to the results of their work. For example, the students/doctoral candidates cannot grant or unrestrictedly grant these rights where the work is based on software owned by the Chair or institute or Chair's or institute's know-how that is protected by intellectual property rights or copyright.

## 2. Insurance

Any insurance issues in connection with **accident protection** will depend on where the thesis/dissertation was prepared:

- Where theses/dissertations are prepared within the organizational scope of responsibility of the university and there is a substantial direct temporal and spatial connection with TUM and its institutions, the authors will be covered by the statutory accident protection scheme of the Bayerische *Landesunfallkasse*. However, any activities within the private or domestic sphere will not be covered.
- Where theses/dissertations are prepared on the premises of an industrial corporation, there will only be statutory accident protection cover by the industrial corporation's insurer if the authors are fully integrated in the corporation's organizational structure, including employment contract and payment of a salary. There will be no statutory accident protection cover if a thesis/dissertation is prepared independently, with flexible working hours and without an employment contract.

Students/doctoral candidates should check their insurance status with the industrial corporations in advance, as under most of the agreements entered into with these corporations there will be no integration in terms of social security and thus no liability coverage. The entry into an agreement for the granting of rights of use or exploitation alone will not be sufficient to establish statutory accident protection cover. Moreover, there will be no statutory accident protection cover for the time spent at an industrial corporation, as the statutory cover resulting from enrolment or from the status of doctoral candidacy or membership of TUM does not cover theses/dissertations prepared outside of the organizational control of the university.

- In case there is no insurance coverage in accordance with the above criteria, students/doctoral candidates are advised to take out private accident insurance, unless accident insurance is covered by their health insurance. In addition, it may be necessary to take out disability insurance coverage, if the private accident insurance does not cover partial or total disability. Other employment relationships, for example, employment at TUM, should be taken into account.
- With regard to **liability**, the following must be borne in mind: As a rule, students/doctoral candidates will be liable for any damage caused by them pursuant to the statutory regulations, as the work on theses/dissertations serves their own interests and is not subject to any employment contract. To avoid any financial risks, students/doctoral candidates are therefore encouraged to take out private liability insurance. They should ensure that the insurance company classify any work on the thesis/dissertation as private work and not as work subject to an employment contract. Where necessary, a laboratory insurance is recommended.
- With regard to insurance issues, reference is made to the *Stipendienmerkblatt* [Information for Scholarship Recipients] that contains supplementary information and should also be complied with by the students/doctoral candidates.

**Contact:**

Please contact the legal team of the TUM Academic and Student Affairs Office for any questions concerning examination law (<http://www.lehren.tum.de/lehren-an-der-tum/team-hrsl/#c980>), for all other questions the staff of unit 53 of the TUM Legal Office (<https://campus.tum.de/tumonline/wborggruppen.gruppen?pOrgNr=31954>).