



## **TOTO**

# **Guidelines for studies counted towards a doctoral degree**

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## Study plans and degree requirements

Doctoral students agree on their doctoral studies in advance with their responsible supervisor. In practice, this means that students draw up a doctoral study plan and discuss the plan with the responsible supervisor in the beginning of doctoral studies and whenever changes are needed. The study plan must indicate the aspired skills and competencies, the courses and assignments to achieve them, the number of credits, and the planned year of each study unit. The doctoral program's study plan template (attached) can be used for drawing up the study plan.

When students apply for admission to doctoral study and later enrol at Tampere University, the study plan is reviewed with the responsible supervisor to ensure that the plan is suitable for developing the competencies required for the doctoral degree. The plan will need to be updated and reviewed in cooperation of the doctoral student and the responsible supervisor at least once a year throughout the doctoral studies.

The student saves his/her personal study plan to the Sisu system and may change the plan by agreeing the changes with the responsible supervisor. The student makes study drafts of the placeholder study units he/she chooses to his/her plan in Sisu, to be able to specify the scopes and contents of the units. When the chosen placeholder unit has been completed, the student applies for the approval and registering of it by sending the application to handling in Sisu. The literature assignments are an exception, they are registered based on an email sent by the responsible supervisor to faculty's doctoral studies mailbox.

The minimum scope of doctoral studies is 40 ECTS credits. The required scope may be extended, especially if it is necessary considering the student's required skills and competencies. The emphasis of doctoral studies is in developing in-depth understanding of a selected field of research and methodological expertise. Study units that may not be counted towards the doctoral degree include pedagogical studies that qualify for teaching at university level (exceptions may apply), language studies (exceptions may apply), basic courses (exceptions may apply), and writing scientific articles or other publications. Credits earned outside of Tampere University while pursuing a different degree will not be double counted towards a Tampere University degree (exceptions may apply).

The student can apply for the confirmation of degree requirements (i.e., the acceptance of both the study modules, Discipline- and Field-Specific Studies and General Academic Competences) in Sisu, when he/she has completed all or almost all study units towards his/her degree and no changes are expected. The confirmation of degree requirements must be done no later than when the doctoral dissertation proceeds to preliminary examination. If all the study units have not been registered yet, there must be study drafts of the not-registered study units in the personal study

plan. In the study draft the information of the study unit agreed with the responsible supervisor needs to be accurately specified (including the credits and informative heading). The confirmation of degree requirements is done in Sisu by sending the both study modules, Discipline- and Field-Specific Studies and General Academic Competences, for acceptance separately but at the same time.

## Degree structure

Doctoral students must earn 40 credits towards their degree by completing doctoral studies. This requirement applies to all doctoral students.

### Discipline- and Field-Specific Studies (previously Major Subject), min. 25 credits

- *The goal is to achieve in-depth understanding in the field of research of the doctoral dissertation, ability to write scientifically, and ability to generate new scientific knowledge in the research field.*
- The study units included in the studies in the research field are intended to provide in-depth knowledge of the core subject areas relating to the doctoral student's field of research and help them make sound and justified choices when carrying out the dissertation research.
- Of all the units included in this module, at least 50% should concern the core subject areas relating to the thesis topic ("depth") and up to 50% should support the research field ("breadth").
- The units included in this module may involve the reading of scientific literature, the completion of doctoral courses, participation in doctoral seminars, scientific community participation etc., as agreed with the responsible supervisor. In some cases, credits earned by completing master's level courses (which are specifically identified as eligible to be counted towards doctoral degrees) may be accepted.

### General Academic Competences (previously General Scientific Studies), min. 10 credits

- *The goal is to achieve strong methodological capabilities and adopt the good practices and principles of the scientific community.*
- The minimum scope for doctoral students who started their studies on 1 August 2019 or thereafter is 10 credits. For students who started earlier the minimum scope is 5 credits.

- Besides the required doctoral seminar and ethics course, all doctoral students are strongly recommended to attend the Doctoral Course on Research Methods, possibly some advanced research methods course(s) and/or complete an applied review of the key scientific methods relating to their field of research, for example, based on assigned reading.
- Compulsory (all doctoral students):
  - DPBTM.500 (earlier TRT-28004) Tuotantotalouden ja tietojohdamisen jatko-opintoseminaari (5 credits)  
OR TAU.TRI.102 (earlier TAUJ041b) Orientation to Doctoral Studies (4 credits) (or TRT-90006 Orientation to Doctoral Studies, 3 cr)
- Compulsory (for doctoral students admitted after 1 August 2019):
  - Ethics, such as research ethics (may also be included as part of some other course), e.g., TAU.TRI.203 (earlier TAUJ12a) Research Ethics I, lecture-based implementation (1 credit) or TAU.TRI.204 (earlier TAUJ12ab) Research Ethics I, online implementation (1 credit)
- Recommended:
  - DPBTM.510 (earlier TRT-28046) Doctoral Course on Research Methods (5 credits) or equivalent
  - Scientific writing (could also be included in the studies of the research field)
  - Advanced methodological studies based on the method choice of the thesis.
- Other general scientific studies, such as doctoral courses on ethics, philosophy of science or information management, etc.

## Implementing doctoral studies

There are four options for completing different study units towards a doctoral degree. Doctoral studies must be planned as a whole to support the achievement of the overall degree goals. The options are described in more detail below.

<b>Completion option</b>	<b>Purpose</b>
1. Scientific literature	deepening and broadening content knowledge and methodological competencies; practising scientific writing skills
2. Course-based learning	deepening and broadening content knowledge and methodological competencies; peer learning
3. Doctoral seminars	refining the research plan or research work; gaining access to peer support and external supervision; developing supervisory collaboration; becoming familiar with the activities of the scientific community
4. Participation in the activities of the scientific community	becoming familiar with the activities of the scientific community

## 1. Scientific literature included in doctoral studies

Readings will be selected individually in accordance with the doctoral student's personal learning goals. The assigned literature must cover a sufficient breadth and depth in the research field. Here the term literature may refer to (scientific) books or articles. A single study unit in this category may be an assignment, essay/synopsis, review, or a written or oral presentation or examination completed to demonstrate the learning after reading a number of books, articles or other assigned literature. Each unit must be given a clear title that describes the content. The research groups and disciplines may develop literature packages that allow students to start exploring themes relating to their field of research.

- The assigned readings should focus on advanced scientific content.
  - For example, to earn 1 credit, doctoral students are expected to read an intermediate-level text with approximately 135 pages and prepare an analytical essay/assignment or take an examination to demonstrate their learning.
  - If students are assigned to read complex scientific articles, they will earn 1 credit by reading 60-80 pages of text and writing an essay/assignment or taking an examination to demonstrate their learning.
  - [Students would have to go through about 300 pages to earn 1 credit by reading popularised but relevant scientific texts. The reading of non-scientific literature should generally not be included in doctoral studies.]
- The recommendation is that doctoral students should gain a broad and in-depth understanding of relevant scientific literature that supports their dissertation research. Typically, a minimum of 15 credits (logically divided into units of 3-7 credits) may be earned by completing assigned reading.

- Each study unit made up of assigned reading must be given a title that clearly describes the acquired knowledge. The required reading must be defined in advance. Students may propose relevant reading to their responsible supervisor, or the responsible supervisor may assign the required reading.
- Doctoral students may demonstrate their understanding of scientific literature in order to earn credits by taking a written or oral examination, writing an essay, or completing a combination of assignments and exercises. All partial completions must be separately agreed upon with the responsible supervisor.

Example of literature packages and their completion options:

<b>Contents</b>	<b>Composition</b>	<b>Completion options</b>	<b>Scope</b>
Theme 1 (knowledge area 1)	two intermediate-level compact books; 10-15 scientific articles	analytical summary	5 credits
Theme 2 (knowledge area 2)	1 intermediate-level extensive book; 20-30 scientific articles	review essay	5 credits
Theme 3 (knowledge area 3)	1 complex and extensive book (such as a collection of articles); 5-10 scientific articles	set of slides (with notes) and an oral presentation delivered to a professor or to a research group at a seminar (incl. discussion)	5 credits
Theme 4 (combination of knowledge areas 2 and 3)	30-40 scientific articles	meta-analysis or review accompanied by an essay and/or presentation	5 credits
Theme 5 (knowledge area 1)	1 book; 5 articles; collection of empirical data in a host organisation and a related written analysis	assignment report (assignment concerning, for example, the development and testing of an analysis framework)	5 credits

**Course code:**

DPBTM.550 (earlier TRT-99901 or TRT-99906) Kirjallisuus / Literature

## 2. Taking doctoral courses

Doctoral studies may include doctoral courses that expand the students' knowledge of their field of research.

- These study units may be courses or seminars that are specifically intended for doctoral students and explore scientific content and scientific work. They may be offered by Tampere University or some other university. These study units may also comprise tutorials, content-based seminars, summer/winter schools with a limited scope or other similar courses that involve lectures, assignments, supervision and/or other scientific work and for which students receive a certificate.
  - The scope and eligibility of such courses to doctoral studies and the doctoral student's personal study plan must be confirmed with the responsible supervisor in advance (responsible supervisors may consult the head of doctoral programme, if necessary).
  - The majority of the study units that are counted towards the doctoral degree in this category must be doctoral courses.
- For courses taken outside of Tampere University, doctoral students are required to present a course certificate and a document outlining the course programme and requirements.
- Master's level courses considered as suitable for doctoral studies may only be accepted if they explore content that is especially relevant to the doctoral student's field of research or a closely related field.
- Other basic courses may only be accepted if they explore advanced content that is especially relevant to the doctoral student's field of research or a closely related field. In these cases, the responsible supervisor will need to justify the decision in writing. For example, MBA courses or professional development courses cannot be counted towards a doctoral degree.

**Course codes:**

- DPBTM.530 (earlier TRT-18010 or TRT-18016) Teknis-taloudellinen vaihtuva-aiheinen jatko-opintopaketti / Changing Subject Postgraduate Course on Business and Technology Management
- Tampere University's own courses with their own codes
- Seminars completed outside Tampere University:  
DPBTM.540 (earlier UPS-99902 or UPS-99907) Seminaari / Seminar

### 3. Attending doctoral seminars

Doctoral studies may include attending general doctoral seminars (doctoral workshop, colloquium, seminar etc.) where students revise and present their research plans and results, receive and offer feedback to their peers and receive mentoring services from an external professor.



- The doctoral seminar offered by the doctoral programme and the course Orientation to Doctoral Studies offered by Tampere University are examples of these seminars with a defined content, learning outcomes and scope.
- Different scientific associations, networks, conferences and project consortia may host their own doctoral seminars (1-6 days) which usually include pre- and/or post-seminar assignments, active attendance and possibly expert lectures and group work. Students are required to present a certificate of attendance enclosed with the seminar programme and requirements.
- Students may claim up to 3 credits for participating in a seminar outside of Tampere University (including a pre-assignment, active participation, and reporting key learnings to the responsible supervisor). When assessing the student's learning, the responsible supervisor will need to consider the actual workload associated with the seminar participation based on the following principles (regardless of how the organiser may have defined the workload):
  - 1 credit: a seminar/workshop (1-1.5 days) with pre-assignments (such as updating the research plan, peer reviewing the research plan of a fellow student)
  - 2 credits: a seminar/workshop (2-3 days) with pre- and post-assignments
  - 3 credits: a seminar/workshop (4-6 days) with pre- and post-assignments
  - Please note that double credits cannot be claimed for the same research plan or the same presentation in this category. Here a pre-assignment means that that an earlier plan is significantly revised for the purpose of the seminar.
- In addition to the doctoral seminar offered by Tampere University, the student's doctoral studies may include **up to 4 credits** for attending other doctoral seminars.

#### Course codes:

- DPBTM.500 (TRT-28004) Tuotantotalouden ja tietojohdamisen jatko-opintoseminaari
- TAU.TRI.102 (TAUJ041b) Orientation to Doctoral Studies
- DPBTM.540 (UPS-99902 or UPS-99907) Seminaari / Seminar

## 4. Scientific community participation

This unit means that doctoral students can earn credits towards their doctoral degrees by participating in the activities of the academic community in various ways. Only scientific assignments will be accepted in this category (no practical or commercial seminars). Students will not be able to claim double credits, for example, for articles that will be included in their compilation-based dissertation or licentiate thesis or their earlier versions. It is possible to earn up to **4 credits** by completing study units in this category.

*a) Delivering a presentation at a scientific conference*

- 1 credit / conference; *max. 3 credits in total*
- Credits can be claimed for conferences where the doctoral student is an active participant, meaning that he/she delivers a presentation based on research and/or serves as a chairperson or discussant during a conference session.
- The study units included in this category must clearly identify the student's active participation (such as the title of the written/oral presentation OR the theme of the session where the student served as chairperson/discussant) and the event he/she attended (name, time and place of the conference).
- One credit can be granted also from other experience related to publishing process (which is not included in the dissertation) following this part's maximum credit limit and instructions (e.g., participating in data analysis, literature review, or writing process related to a subject external to the dissertation, before doctoral education etc.). Also in these cases the study units needs to be labeled with a clear heading and description of the developed competence.

*b) Serving as the official supervisor of a master's thesis*

- 1 credit / thesis; *max. 2 credits in total*
- The doctoral student must have supervised the master's student actively throughout the thesis process.
- Supervising a master's student will enable the doctoral student to become closely familiar with the guidelines, requirements, and practical arrangements that apply to master's theses.
- Doctoral students supervise master's students under the guidance of their responsible supervisor.

*c) Serving as a peer reviewer for a scientific journal*

- 3 reviewed manuscripts / 1 credit; *max. 1 credit in total*
- The task needs to be demonstrated by the student's correspondence with the editor and/or a discussion about the learnings from peer review between the supervisor and student.
- Responsible supervisor will assist students support them in following good review practices.

*d) Communicating research to external audiences and engaging in societal interaction*

- 27 hours of work = 1 credit, *max. 1 credit in total*
- For example, newspaper articles, speeches, presentations

#### e) *Participating in the planning of a research project*

- 1 credit / planning of a research project together with supervisor and an external collaboration partner; *max. 1 credit in total*
- Participation is needed throughout the whole planning stage.

Scientific community participation is demonstrated by the doctoral student by keeping a learning diary, preparing an essay or a self-assessment, or delivering an oral report, to be approved by the responsible supervisor. The format and scope of the study attainment are agreed in advance with the responsible supervisor.

#### **Course code:**

- DPBTM.570 (TRT-90100 or TRT-90106) Tiedeyhteisön toimintaan osallistuminen / Scientific Community Participation

## Approving and recording the completed units of study

### Assignments based on literature

The student delivers the output concerning the assignment (report, presentation etc.) to the responsible supervisor. The responsible supervisor examines the assignment based on the principles of these instructions, accepts it and sends an email of the acceptance of the assignment to the faculty's education assistant ([mab.doc.tau@tuni.fi](mailto:mab.doc.tau@tuni.fi)).

The message includes:

- student's name
- student number
- date of the assignment
- list of references
- the scope of the assignment (full credits)
- if the assignment has been completed in Finnish, the subject of the assignment in Finnish and English, if the assignment has been completed in English, the subject of the assignment in English

The education assistant registers the assignment.

### Assignments based on courses and seminars

The credits earned by completing **courses offered by Tampere University** will be recorded by the course teacher as usual. Also in these cases, the doctoral students must agree on the

completion of these courses with the responsible supervisor in advance, so that the courses are suitable and relevant to be counted towards the doctoral degree.

For **doctoral courses and doctoral seminars** completed outside of Tampere University (other universities or networks), students need to obtain a certificate of completion from the organizer. In addition, a description of the course is needed, including the contents of the course, completion requirements, and the estimated workload (credits). The responsible supervisor ensures that the study unit meets the requirements and consider the scope and workload (to ensure that the number of credits equals the workload and that the content of the unit is suitable) before deciding whether to support the application. The student makes a study draft of the unit in Sisu.

The student applies for the acceptance and recording of such study units via Sisu. If the organizer is an educational institution like another university, the right application type is the inclusion application. If the organizing party is, e.g., some association or network, the right application type is the custom content approval application. The certificate of completion and the course description need to be attached to the application. The final decision to approve the credits will be made by the head of the doctoral programme. The education assistant will enter the credits in the academic records.

## Assignments based on scientific community participation

The doctoral student provides a written assignment, report, presentation, etc. to the responsible supervisor, to demonstrate the learning during the assignment. The responsible supervisor will assess the assignment in accordance with the principles set out in this document. The student makes a study draft of the unit in Sisu and applies for its acceptance and recording via Sisu. He/She mentions on the application, that the responsible supervisor supports the application. The head of the doctoral programme checks and approves the credits and the education assistant will enter the credits in the academic records.

## Doctoral Programme in Business and Technology Management

### STUDY PLAN

**Name:**

When planning your doctoral studies, please 1) consider the **scientific knowledge and competence needs** you have concerning your research field and topic, 2) **methods of learning** to fulfill those needs, 3) the **scope** of such learnings (credits), and 4) **timing** (year and term, spring or autumn). The units chosen to the study plan need to be **suitable for postgraduate studies** and **agreed with the responsible supervisor**. Details can be adjusted during the studies with the responsible supervisor.

#### Discipline- and field-specific studies (min. 25 credits)

Knowledge area	Implementation, incl. possible title (e.g. course, essay, conference, seminar)	Cr	Year
	Discipline- and field-specific studies total		

#### General academic competences (min. 10 credits)

Knowledge area	Implementation, incl. possible title (e.g. course, essay, conference, seminar)	Cr	Year
Doctoral research, general*			
Ethics*			
	General academic competences total		

\*Compulsory: either DPBTM.500 Tuotantotalouden ja tietojohdamisen jatko-opintoseminaari, 5 cr or TAU.TRI.102 Orientation to Doctoral Studies, 4 cr. In addition it is compulsory to study at least 1 cr of ethics. You can choose e.g. TAU.TRI.203 Research Ethics I (lecture-based implementation), 1 cr or TAU.TRI.204 Research Ethics I (online implementation), 1 cr.

#### Total credits (min. 40 credits)

	Credits
Discipline- and field-specific studies total	
General academic competences total	
Degree total	