



Principles of high-quality supervision and guidance in doctoral education

IMPLEMENTATION PLAN FOR SUPERVISION AND GUIDANCE AT THE FACULTY OF MATHEMATICS AND SCIENCE 2025-2028

THE OBJECTIVES OF THE IMPLEMENTATION PLAN

For the first time, the University of Jyväskylä has established principles of high-quality supervision and guidance in doctoral education (Vice rector's decision on 30 April 2025). According to the principles, doctoral students are provided supervision, guidance, teaching and support in a student-oriented, holistic, accessible manner with a sense of community in the following four areas of guidance: expertise, internationalisation, career planning and wellbeing.

The implementation plan describes how supervision and guidance in compliance with the principles of high-quality supervision and guidance in doctoral education are implemented in practice. The purpose of the implementation plan is to support supervisors in identifying their own supervision tasks and in carrying out their work in cooperation with various actors. The implementation plan should support the work of both novice and more experienced supervisors.

According to the Degree Regulations § 29, a plan for student guidance and counselling is confirmed along with the curriculum. **For the curricular period 2024-2028, the Faculty Councils will approve the implementation plans for doctoral supervision during spring 2025 and they will enter into force at the beginning of the autumn semester 2025.** Doctoral schools take care that dissertation supervisors and heads of doctoral programmes know the principles of high-quality supervision and guidance and the unit's guidance implementation plan and that the guidance described in the implementation plan is available at different stages of studies and dissertation research.

IMPLEMENTING OF THE PRINCIPLES OF THE SUPERVISION AND GUIDANCE

Student orientation

Principle: Above all, student orientation in the supervision and guidance of doctoral students is characterised by how a doctoral student's expertise, interests, career goals and recognized competence requirements play a significant role in creating a research plan for the dissertation and the doctoral study plan.

How is it ensured that doctoral students' individual expertise, research interests, career goals and recognized competence requirements are taken into account when creating a research plan for the dissertation and the doctoral study plan?

The doctoral student and the supervisor discuss the student's personal goals for the doctoral degree and for the completion of the degree already at the stage of applying for the study right. During the application phase, the research plan and the doctoral study plan are discussed, as well as the way in which the studies will be carried out (in a project, part-time, full-time, personal scholarships, alongside other work). The research plan is made using the template provided by the faculty or doctoral programme. The supervisor will be involved in creating the research plan and will commit themselves to acting as supervisor in accordance with the practice of the doctoral programme. During the doctoral studies, the individual needs and goals of the doctoral student and any changes in these will be taken into account in the supervision of the doctoral dissertation and in the updating of the research and doctoral study plans.

Holistic approach

Principle: The holistic approach means that, alongside developing their research skills and expertise in their field of study, doctoral students are also provided with support and guidance on internationalisation, career planning, and promoting and maintaining wellbeing. This includes supervision and guidance that are available from the application phase to graduation.

How is it ensured that doctoral students receive supervision and guidance on internationalisation, career planning and promoting and maintaining wellbeing at different stages of their doctoral studies?

Each doctoral student has a follow-up group, which meets with the student and supervisor at least once a year (for full-time doctoral students) or at another agreed interval (for part-time doctoral students). The key duties of the follow-up group are to monitor and promote the progress of the doctoral student's dissertation research and doctoral studies, as well as to support the student's career planning. The topics discussed at the follow-up group meetings also include goals related to internationalisation and how to achieve them. The same topics will also be discussed in the supervision meetings between the doctoral student and the supervisors. In matters relating to the promoting and maintaining well-being, the supervisors will have the possibility to guide the doctoral student to use the competence and well-being services provided by the university. For doctoral students with an employment relationship with the University, these issues are also addressed in the goal discussions.

Accessibility

Principle: Accessibility refers to the availability of supervision, guidance and information needed for the progress of dissertation research and studies, using a wide range of methods in teaching, making materials accessible, and taking individuality and diversity into account in teaching and guidance. The doctoral student and the dissertation supervisors are jointly responsible for ensuring that regular guidance discussions are held to promote research and studies. Regular guidance and scheduled goals support the quality and completion of the doctoral degree within the target time of 3 to 4 years (studying full-time). In curricula and teaching schedules, faculties consider various approaches to organising teaching and completing studies. Doctoral students can also apply for individual study

arrangements such as additional time for an exam, when necessary. Responsibilities for the orientation and induction of doctoral students are shared between several different actors. These responsibilities are described in more detail in the Instructions for Doctoral Students on the JYU website.

How is it ensured that doctoral students and their supervisors have regular supervision meetings to support the research and studies? How is it ensured that there are various approaches to organising teaching and completing studies in curricula and teaching schedules?

The supervision meetings that promote doctoral research and doctoral studies (frequency of meetings, who takes the initiative to organise the meeting, etc.) are agreed in a supervision document that is confirmed each academic year. The responsibilities of the doctoral student, the supervisor and the follow-up group are described in the supervision document. Time for the supervision of the doctoral dissertation is reserved in the supervisors' work plans. The doctoral student and the dissertation supervisors are jointly responsible for ensuring that guidance discussions are held. Through the follow-up group, the doctoral student has the opportunity to bring any problems arising in the supervision relationship to the attention of the doctoral programme (the specialization representative) and to have them resolved.

When drawing up the curriculum of a doctoral programme, the organising unit ensures that the curriculum includes the possibility of optionality and that there are completion mode options within the study units.

Sense of community

Principle: The sense of community refers to a student's integration into the university community and their field. To support this, dissertation supervisors and the management of doctoral schools and programmes encourage all doctoral students to actively participate in the activities of the University and the student's own unit and, when possible, in the domestic and international events and networks of their field. This also applies to doctoral students who study part-time, for example, alongside working. For doctoral students moving to Finland from abroad, integration into the university community and Finnish society is supported with, for example, Finnish language studies and the JYU Local Friendship Programme.

How is the networking and integration of doctoral students to the university community and their own discipline supported, taking into account different groups of students (e.g. non-Finnish-speaking and part-time doctoral students)?

In dissertation supervision, doctoral students are encouraged to take advantage of a wide range of networking opportunities within their discipline, within the university community and internationally. These include research seminars in the doctoral programme, national courses, seminars and events, international conferences and summer schools. The doctoral student's own activity and the support of the research team strengthen the attachment to the university community and to their discipline. Doctoral schools and programmes provide networking opportunities, especially for new doctoral students at the very beginning of their studies, and support student-led peer groups.

AREAS OF SUPERVISION AND GUIDANCE

Expertise

Principle: Doctoral education focuses on developing each student's research skills and expertise in their field of study. It also strongly supports the development of general working life skills or transferable skills such as communication skills, problem-solving skills, self-management skills and collaboration skills. Dissertation research forms a majority of doctoral education and is in a primary role in the development of expertise, researcher skills and general working life skills. The dissertation supervisors have the main responsibility for supervising the research. In addition to dissertation research, the development of expertise and working life skills is supported by a variety of studies and activities in the academic and scientific community as well as in organisations and companies outside the University.

How are opportunities to develop researcher skills and work-life skills reflected in the curricula of doctoral programmes?

Dissertation research and writing a dissertation strengthen academic expertise in one's own discipline and develop wide range of skills for both research and working life. In addition to the doctoral dissertation, the curricula of doctoral programmes include compulsory and elective courses, as well as a wide range of opportunities to include internships, work-related credits, research mobility, conference presentations and teaching. All doctoral programmes include research ethics, open science and communication studies as compulsory studies. In addition, doctoral programmes have decided on compulsory or elective courses which develop discipline specific skills and working life skills. In addition to the credit courses, doctoral students have the opportunity to participate in staff training and workplace counselling groups for researchers, as well as in coaching groups open to all members of the working community.

Internationalisation

Principle: In addition to equipping graduates with research and working-life skills, doctoral education aims to provide them with the expertise necessary for international cooperation. JYU's international research and learning environments offer excellent conditions for internationalisation. Doctoral education may include international research cooperation and research visits abroad as well as international conferences and summer or winter schools both in Finland and abroad. Dissertation supervisors support the integration of doctoral students into the international science community.

Do the curricula of doctoral programmes allow all doctoral students to develop their expertise and experiences on internationalization in a goal-oriented way?

The curricula of doctoral programmes include study units that can be completed, for example, as a research visit, conference presentation or participation in an international conference. It is also possible to include studies in international networks and summer schools into doctoral studies. It has not been possible to include in the curricula all the activities that strengthen

internationalisation competence during doctoral studies, such as international research cooperation or internationalisation opportunities at home, as separate study units. The role of the supervisors and the follow-up group is to support the student in identifying the competences acquired through such activities.

Career planning

Principle: Students should consider their future employment at an early stage of their doctoral studies so that their career goals can be taken into account in their study planning. The dissertation supervisors, the follow-up group and JYU Career Services support doctoral students in career planning. In addition, the University and its units arrange alumni activities, business networking days and other events.

How is the career planning of doctoral students supported at different stages of their doctoral studies (at the beginning of studies, in the middle of studies, at the end of studies and graduation)?

Supporting the career planning of doctoral students is the responsibility of the dissertation supervisor and the follow-up group. If the student has a clear career goal, career planning can start with the orientation of the dissertation research plan and doctoral study plan to support the achievement of the career goal. During the doctoral studies, the supervisor will support the doctoral student, where possible, in building contacts with the work life and will guide the student to reflect on their career plan at appropriate occasions, such as study units, different events and in preparation for the follow-up group meeting. Career plans can also be discussed during goal discussions with doctoral students with an employment relationship with the University. The University provides career services for doctoral students and support for researchers in promoting research-driven business. Dissertation supervisors will guide doctoral students, particularly those interested in entrepreneurship and innovation, to these services during their doctoral studies.

Wellbeing

Principle: The University and its units offer various materials, courses, services and events to support doctoral students' wellbeing, academic study skills and readiness for coping at work. They can also utilise the offering of uMove, the Academic Sports services in Jyväskylä. In addition, doctoral students with an employment relationship with the University can use the occupational health service. Grant researchers may be eligible for a medical expenses insurance policy paid for by the University under certain conditions.

What kind of wellbeing practices does the unit have for doctoral students (e.g. peer group activities, buddy activities, events promoting wellbeing at work and academic study ability)?

Doctoral students often have good possibilities to plan their research, studies and use of time in a way that supports their wellbeing. In dissertation supervision, doctoral students are encouraged to take care of their own wellbeing, build peer support networks and participate in community events. The university offers doctoral students a wide range of wellbeing services to promote and maintain wellbeing, and also to help them cope with situations that threaten their wellbeing. More information on the services available can be found in the

instructions for Doctoral Students. It is the responsibility of the dissertation supervisor to refer the doctoral student to these services if necessary.

QUALITY ASSURANCE AND EVALUATION OF SUPERVISION AND GUIDANCE

Supervisors

How it is ensured that dissertation supervisors have the prerequisites (e.g. scientific expertise and qualifications, knowledge of the objectives and practices of doctoral education, supervision skills, number of supervisees) to supervise dissertations in such a way that the doctoral student achieves the scientific qualifications required for a doctorate, the dissertation meets the dissertation requirements and completion is possible within the target time?

Supervisors are appointed at the admission stage, during which supervisors' prerequisites to supervise dissertations successfully are ensured. The supervisor-in-charge must have an employment relationship with the University of Jyväskylä, a doctoral degree and sufficient academic merits. It is up to the faculty or department to assess the adequacy of the academic merit. Another supervisor is appointed in addition to the supervisor-in-charge. There may also be additional supervisors. When appointing supervisors, it will be ensured that there is sufficient competence and continuity in the supervisor pool and that sufficient time can be devoted to supervision. To support the work of the supervisors, various discussion and information sessions will be organised to discuss current issues in doctoral education. Information is also shared through faculty-specific dissertation supervisor Teams groups. Supervisors have the opportunity to participate in staff training offered by the university to strengthen their pedagogical skills, for example in the JYUPeda university pedagogical studies and Yliopisto-ohjauksen perusteet training.

Follow-up groups

How it is ensured that follow-up groups function in an appropriate way (e.g. appointment of group members, tasks and meetings of the group and use of the results of the meetings)?

The follow-up group is appointed before the start of doctoral studies as part of the doctoral student admission process. The faculty doctoral school or the doctoral programme will provide guidelines to support the work of the follow-up groups. The composition of the follow-up group is documented in the doctoral student's supervision document. Follow-up groups meet at the initiative of the doctoral student. The responsibility for the meetings of the follow-up groups lies jointly with the doctoral student and the supervisors.

Administrative supervisors and management of doctoral schools and programmes

How is it ensured that administrative supervisors discuss supervision and guidance duties as part of goal discussions? How does the management of doctoral schools and programmes evaluate the quality and sufficiency of supervision and guidance (e.g. data and indicators)?

The availability of expert supervision and the adequacy of supervision resources is one of the selection criteria used in the application phase of doctoral education. The adequacy of supervision resources is assessed by taking into account the number of supervisees per supervisor. The time allocated to supervision will be included in the supervisor's work plan. Administrative supervisors are instructed to raise the issue of dissertation supervision as part of goal discussions. The quality and effectiveness of doctoral education is assessed by the boards of doctoral schools and programmes, using reports such as the reports on the state of doctoral education (Tohtorikoulutuksen tila) and reports on progress of doctoral students.