



Call for Applications for Doctoral Researcher Positions at the University of Turku Graduate School Doctoral Programme in Exact Sciences (EXACTUS)

Short description of the doctoral programme

In the [Doctoral Programme in Exact Sciences \(EXACTUS\)](https://www.utu.fi/EXACTUS) the following academic disciplines are represented: applied mathematics, astronomy, chemistry, learning analytics, materials science, mathematics, physics, statistics and theoretical physics. The supervisors of the doctoral researchers are mainly from the Department of Physics and Astronomy, Department of Chemistry, Department of Mathematics and Statistics, the Finnish Centre for Astronomy with ESO, the Turku PET Centre or the Turku Research Institute for Learning Analytics. The website of the doctoral programme can be found at www.utu.fi/EXACTUS.

Application period and what can be applied for

During the application period **28 August - 13 September 2024**, you can apply for:

- a) The right to study a doctoral degree at the University of Turku at the Faculty of Science at the Doctoral Programme in Exact Sciences (EXACTUS) from 1 January 2025 onwards**

- b) A fixed-term doctoral researcher position under an employment contract**

The position of a doctoral researcher is set to begin on 1 January 2025 at the earliest and for the duration of a maximum of four years (up to until 31 December 2028). The positions are intended for full-time doctoral dissertation research and postgraduate studies. Duties other than those related to doctoral dissertation research, such as teaching duties, must be proportioned so as not to compromise the completion of the doctoral dissertation within the planned schedule. As a rule, up to 5% (a maximum of about 80 hrs per academic year) of the annual working time of the doctoral researcher can consist of teaching.



The EXACTUS doctoral programme uses a matching funding model, in which University of Turku Graduate School (UTUGS) funding can be granted for a maximum of 24 months per doctoral researcher. The applicant can apply for a funding period (the doctoral researcher position under an employment contract) of maximum 48 months from the EXACTUS doctoral programme. From the funding period at most 24 months can be UTUGS funding and the rest of the required funding (matching funding) must be arranged together with the doctoral researcher's supervisor and the Department / Unit.

When determining the length of the employment contract, prior funding granted for pursuing a doctoral degree, planned schedule and current phase of the research is taken into account. The maximum length for a doctoral researcher position is four years. A person already awarded with a doctoral degree cannot be chosen as a doctoral researcher under an employment contract.

A doctoral researcher position requires working in Finland. The place of work is Turku. The University of Turku has flexible opportunities for remote work. The doctoral researcher works at a department or unit affiliated with the EXACTUS Doctoral Programme.

The salaries are determined in accordance with the University salary system for teaching and research personnel. It consists of a task-specific salary component and a personal performance salary component. The task-specific salary component of a doctoral researcher is at level 2–4, depending the progress of the doctoral project. The component based on personal performance is 6–50% of the task-specific salary. The task-specific salary component of an entry-level doctoral researcher is typically on level 2. The salary of a doctoral researcher varies between 2 400 – 3 300 € per month depending on the doctoral dissertation progression and the doctoral researchers experience and competences. A probationary period of 6 months applies.

c) Both of the above (a and b)



What is expected of you

When applying for a right to study:

- You are required to have completed a relevant Master's degree awarded by a university or a university of applied sciences, or a relevant study programme abroad which in the awarding country gives eligibility for the corresponding level of higher education (Universities Act 558/2009, 37§); The degree, which grants the applicant the eligibility for the study right for a doctoral degree, must be completed within the application period, or after the application deadline on the condition that the applicant graduates and submits a scanned degree certificate and a transcript of study records to the University of Turku email sci-docstudies@utu.fi by 15 November 2024.
- You must fulfil the University of Turku language skill requirements. [Link to language requirements in the web page of the university's graduate school.](#)
- You are required to fulfil the prerequisites set by the Faculty of Science for granting a right to study. For more information, see the section "Admission criteria for the right to study a doctoral degree".

When applying for a fixed-term Doctoral Researcher position under an employment contract:

- You are required to have an active right to study in the EXACTUS Doctoral Programme. In addition, you must demonstrate the ability to undertake doctoral studies and complete a doctoral degree in accordance with the research plan (University of Turku Rules of Procedure 16.1.2022). If you have not yet been granted a right to study, you must apply for a right to pursue a doctoral degree in the Faculty of Science in the EXACTUS Doctoral Programme by filling in an electronic form in My Studyinfo service (for details, please, see section "How to apply the right to study for a doctoral degree"). A right to study is a prerequisite for an applicant to be chosen for a fixed-term doctoral researcher position under an employment contract;
- You are planning to pursue, or pursuing, your first doctoral degree;



- You have not previously been granted a full-time four-year funding for pursuing a doctoral degree.

How to apply

Please note, that when applying for *both* the right to study and a fixed-term doctoral researcher position, you will need to fill in the application with the required attachments to the separate online systems (see more information below). The right to study for a doctoral degree is applied for by filling in an electronic form in the My Studyinfo service and the fixed-term doctoral researcher positions are applied for by filling in an electronic form in the University of Turku recruitment system (TalentAdore). For both applications you will need to attach the required additional documents (in pdf form). Application documents are specified at the end of this call for applications (Appendix 1 & Appendix 2). It is recommended that application documents are written in English.

How to apply the right to study for a doctoral degree:

The right to study for a doctoral degree is applied for by filling in an electronic form in My Studyinfo service and attaching the required additional documents specified in Appendix 1. The form will be accessible as the application period begins on 28 August 2024 and closes at 4 pm (16:00, local time in Finland) on 13 September 2024. [Link to the University of Turku Graduate School web page, where the application form can be found.](#)

During one application round the applicant may apply to a maximum of two doctoral programmes at the University of Turku. You can only have one valid study right at a time for a doctoral degree at the University of Turku.

Applications that arrive after the application period has ended will not be processed. When the application period has ended, you cannot change the doctoral programme you are applying for, or any other information.

You can only apply for right to study a doctoral degree in My StudyInfo service. If you also want to apply for a fixed-term doctoral researcher position under an employment



contract, you must apply for that position separately (for details, please, see section “How to apply the fixed-term doctoral researcher position under an employment contract”).

In the EXACTUS doctoral programme, the application procedure for the right to pursue the doctoral degree has **two phases**. In the first phase, the applicant submits an application (the My StudyInfo electronic form) where they describe themselves and their plans regarding the doctoral studies and a dissertation. The doctoral programme evaluates all the applications and checks the eligibility of the applicant, how the applicant’s research topic interests fit the profile of the programme, and assesses the merits of the applicants. Moreover, the doctoral programme checks if it can offer two suitable supervisors and a research director to the applicant.

A doctoral researcher should have a research director, a principal supervisor and at least one other supervisor. The research director should have an employment contract to the department where the major subject of the doctoral degree is based and the title of the research director should be a professor. In an exceptional case, if there is no professor available, an associate professor can be nominated as a research director. The principal supervisor should be a professor, associate professor, assistant professor or adjunct professor/docent and in most of the cases have an employment contract to the University of Turku. Other supervisors should hold a doctoral degree.

The most competitive applicants for whom the programme can offer two supervisors will be invited to the second phase. These applicants will be contacted personally and the doctoral programme will appoint supervisors and a research director to them. Together with supervisors the applicant compiles a second phase application which includes a research, funding and supervision plan.

How to apply the fixed-term doctoral researcher position under an employment contract

The fixed-term doctoral researcher position under an employment contract is applied for by filling in an electronic form in recruiting service (TalentAdore) and attaching the



required additional documents specified in Appendix 2. The form will be accessible as the application period begins on 28 August 2024 and closes at 4 pm (16:00, local time in Finland) on 13 September 2024.

The doctoral researcher positions under an employment contract are published on the “Open Vacancies at the University of Turku” website as well as the University of Turku’s Graduate School’s website. [Link to the University of Turku Graduate School web page, where the application form can be found.](#) Applications which arrive after the application period has ended will not be processed. When the application period has ended, you cannot change the doctoral programme you are applying for, or any other information.

A right to study in the EXACTUS doctoral programme is a prerequisite for an applicant to be chosen for a fixed-term doctoral researcher position under an employment contract. If you do not yet have an EXACTUS doctoral programme study right, you must apply for one from the EXACTUS doctoral programme from the My StudyInfo service (see section “How to apply the right to study for a doctoral degree”).

Evaluation of applications

The applications are reviewed by the steering committee of the doctoral programme. If needed, the applicants can be interviewed.

Admission criteria for the right to study a doctoral degree

When admitting the right to pursue for a doctoral degree, the eligibility criteria of the applicant must be fulfilled. In addition to the eligibility criteria for doctoral degrees (Universities Act 558/2009, 37§) and the required language skills, the educational and research-related merits, the quality of the research plan, and the research potential based on the application are used as admission criteria. In the selection process, applicant's motivation, merits and completed studies will be taken into account.

In order to be accepted as a doctoral researcher, an applicant is required to have completed the advanced studies in the Master’s degree with at least grade “Good” or



equivalent (Grade 3 in the Finnish grading system). If this is not the case, or if the subject of the Master's degree differs from the field of research of the intended postgraduate studies, researchers will be asked to supplement their knowledge and skills to achieve the required level. A research director nominated for the doctoral researcher will give a statement of possible required bridging studies in these exceptional cases.

The chosen applicants must have a good knowledge of the English language. A prerequisite for admission is that there is at least two persons who have agreed to act as a supervisor and who fulfils the qualification requirements for supervisors. In addition, the applicant's research topic must fit in with the doctoral programme's research profile.

Evaluation of applications for a fixed-term doctoral researcher position under an employment contract

In addition to the eligibility criteria related to the right to pursue a doctoral degree, criteria used in the selection of doctoral researchers for fixed-term doctoral researcher positions may also include the applicant's merits, completed previous studies and their fast progression, grade of the Master's thesis (or corresponding work) and capability to complete a doctoral degree, as well as the quality and feasibility (in the planned schedule) of the research plan, including the number of publications and already completed postgraduate studies for the doctoral degree, are taken into account in the selection of doctoral researchers.

The doctoral programme is multidisciplinary and aims to further all relevant research fields, which may be considered when filling the doctoral researcher positions. Any other funding received by the applicant for doctoral studies, the planned schedule, and current phase of the research, may be taken into consideration when determining the duration of the doctoral researcher funded position.



Decisions

Study right decisions

The Dean/Vice Dean of research affairs of the Faculty of Science decides on granting the right to study for a doctoral degree based on the proposal of the steering committee of the doctoral programme and the statement from the Department/Unit. All applicants will be personally informed about the decisions by 1 November 2024.

An admitted applicant has to notify the University of Turku of their acceptance of the study place by 3:00 pm (15:00, local time in Finland) on 13 December 2024 according to the instructions given in the admission notification. If the admitted applicant does not give the notification by the end of the allotted time period mentioned above, the applicant forfeits the study place. A person admitted to more than one university or polytechnic degree programme only notifies the one educational institution at which they choose to accept the study place. Notification, i.e. accepting a study place, is binding and may not be cancelled or changed later.

According to Finnish university legislation, an applicant may accept only one study place leading to a higher education degree in Finland during one academic term (autumn term 1 Aug – 31 Dec or spring term 1 Jan – 31 Jul). This rule applies to all higher education, i.e. Bachelor's and Master's level degrees awarded by Finnish universities of applied sciences, Bachelor's and Master's degrees awarded by Finnish universities, and Licentiate and Doctoral degrees awarded by Finnish universities. This regulation is not applied to study rights received in transfer student selections, from the Åland University of Applied Sciences, from the Police University College, and from institutions of higher education outside Finland.

The applicants who have completed their prior degree in a country other than Finland and who are granted a study right in this call, need to deliver either the original degree certificates or certified copies of the original degree certificates and their translations to the University of Turku, as instructed in the admission notification, on 7 March 2025 at the latest. If the admitted applicant does not deliver the required certificates by the



deadline, they forfeit the study right. [Instructions on delivering certificates and country-specific requirements.](#)

Doctoral researcher positions under employment contract decisions

The Head of the Department/Unit decides on the recruitment of the applicant for the position of a doctoral researcher under an employment contract based on the proposal of the steering committee of the Doctoral Programme. All applicants will be personally informed about the decisions by 30 November 2024. The names of the persons who have been selected for the funded positions will be published on the website of Doctoral Programme (www.utu.fi/EXACTUS). A selected applicant has to notify their acceptance of the position according to the instructions given in the offer notification.

Further information

sci-docstudies@utu.fi

www.utu.fi/EXACTUS/

[Link to instructions on how to apply to doctoral training in the Faculty of Science](#)

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Appendices

Appendix 1: Application documents for study right application

Appendix 2: Application documents for doctoral researcher position under an employment contract



APPENDIX 1. Application documents for *study right application*

Please fill the electronic application form on My StudyInfo and attach the required application documents into it. Please make sure that all attachments are of good quality, are easy to read, and are full-colour scans or photographs of the complete required document.

The application documents should be in pdf-format. Attachments that do not meet these requirements may be rejected.

1. Curriculum Vitae (CV) including publications list (*mandatory*)

[Link to instructions by the Finnish National Board on Research Integrity \(TENK\) for writing a CV.](#) You can also choose to do a free-form resume. Link to publications list instructions in [English](#) and in [Finnish](#).

2. Motivation letter (*mandatory*)

The motivation letter is one page long freeform document, which includes the reasons for applying for the doctoral studies in the EXACTUS Doctoral Programme and for conducting research. If you have a right to study for a doctoral degree at another university or in another doctoral programme at the University of Turku, you must provide reasons for changing over to the EXACTUS doctoral programme in the motivation letter. A doctoral researcher may have only one doctoral degree study right at the University of Turku at a time.

3. Degree certificates and transcripts of study records (*mandatory*)

- a) If you have completed your former degree(s) that make you eligible for doctoral studies at a **higher education institution in Finland**, you must attach the following items to the electronic application form:
- scanned original degree certificates
 - scanned original transcripts of study records
 - scanned original other educational documents which may be of relevance in the student selection and that you are applying based on.



b) If you have completed your former degree(s) that make you eligible for doctoral studies at a **higher education institution abroad (i.e. outside of Finland)**, you must attach the following items to the electronic application form:

- a. scanned original degree certificates (in the language that the degree was completed in)
- b. scanned original transcripts of study records (in the language that the degree was completed in)
- c. scanned other original educational documents which may be of relevance in the student selection and that you are applying based on.

If the **original degree certificates or transcripts of study records are not written in English, Finnish or Swedish**, official translations to one of these languages must also be submitted. An official translation here refers to a translation of the educational documents issued by the awarding institution and a translation made by an authorised translator. A transcript in English can be replaced by a Diploma Supplement (DS) awarded by a European educational institution, provided that it contains the information about completed courses and other study attainments.

c) If the **degree that gives eligibility for the study right for a doctoral degree is not completed by the deadline of application time**, an up-to-date transcript of study records must be attached to the application.

If you have completed the former degree(s) which make you eligible for doctoral studies at a university abroad (i.e. outside Finland), please make sure to have original degree certificates and other relevant educational documents ready at hand if you are granted a right to study. Instructions will be given in the admission notification.

4. Copy of a valid passport (check below if this is mandatory for you)

Attach a copy of your valid passport or official identification card with photo and information on citizenship. If you have a Finnish personal identity code and you have entered it on the application form, you do not need to attach a copy of your passport.



5. Verification of language proficiency (*check below if this is mandatory for you*)

The University of Turku follows the Rector's decision (15 Aug 2019) on the means of verifying one's language proficiency. You must carefully study the instructions on language requirements of the University of Turku. [Link to the language requirements on the website of the University's graduate school](#). The language test result is a mandatory attachment of the right to study application, if not otherwise stated in the University of Turku graduate school web page. If you are required to prove your language proficiency with a language test, a scanned certificate of a completed language test must be attached to the application.

6. Research plan (recommended to be written in English) (mandatory for those invited to the second application phase)

The maximum length of the research plan is **3 pages (including references)**. The research plan should contain:

- Name of the applicant
- The planned title of the doctoral dissertation
- Research topic in the context of the field
- Scientific motivation and goals
- Methods and environment of the research
- Applicants own role and specialization in the study
- Timetable of research
- Current state of doctoral thesis and postgraduate studies.

The research plan should follow the guidelines for the responsible conduct of research (see [Responsible Conduct of Research \(RCR\) | Finnish National Board on Research Integrity TENK](#)). The research plans can be checked with the Turnitin OriginalityCheck plagiarism detection software. The use of artificial intelligence (AI) to assist in the preparation of the research plan in a wider role other than checking grammar or generating short expressions should be clearly indicated in the research plan.

7. Supervision plan signed by applicant, supervisors and research director (mandatory for those invited to the second application phase)

The blank supervision form is available on the website of the doctoral programme. [A link to the page where the supervision plan form is found](#).



APPENDIX 2. Application documents for *doctoral researcher positions under an employment contract*

Please fill the electronic application form on TalentAdore and attach the required application documents into it. Please make sure that all attachments are of good quality, are easy to read, full-colour scans or photographs of the complete required document. **The application documents should be in pdf-format.** Attachments that do not meet these requirements may be rejected.

1. Curriculum Vitae (CV) including publications list

[Link to instructions by the Finnish National Board on Research Integrity \(TENK\) for writing a CV.](#) You can also choose to do a free-form resume. Link to publications list instructions in [English](#) and in [Finnish](#).

2. Research plan (recommended to be written in English)

If an applicant **already has the right to study from the EXACTUS doctoral programme**, then they have to attach a research plan to their application. The maximum length of the research plan is **3 pages (including references)**. The research plan should contain:

- Name of the applicant
- The planned title of the doctoral dissertation
- Research topic in the context of the field
- Scientific motivation and goals
- Methods and environment of the research
- Applicants own role and specialization in the study
- Timetable of research
- Current state of doctoral thesis and postgraduate studies.

The research plan should follow the guidelines for the responsible conduct of research (see [Responsible Conduct of Research \(RCR\) | Finnish National Board on Research Integrity TENK](#)). The research plans can be checked with the Turnitin OriginalityCheck plagiarism detection software. The use of artificial intelligence (AI) to assist in the preparation of the research plan other than checking the language or generating short expressions should be clearly indicated in the research plan.



Those **applicants who apply for the study right**, will write a research plan in the second application phase. The applicant will write the plan together with their supervisor.

3. Bachelor's and Master's degree certificates and study transcripts (or documents of corresponding degrees)

- a) If you have completed your Bachelor's and Master's degree(s) (or corresponding degrees) at a **higher education institution in Finland**, you should attach the scanned original degree certificates and transcripts of study records to the electronic application form.
- b) If you have completed your Bachelor's and Master's degree(s) (or corresponding degrees) at a **higher education institution abroad (i.e. outside of Finland)**, you should attach the scanned original degree certificates and transcripts of study records (in the language that the degree was completed in). If the **original degree certificates or transcripts of study records are not written in English, Finnish or Swedish**, official translations to one of these languages should also be submitted. A transcript in English can be replaced by a Diploma Supplement (DS) awarded by a European educational institution, provided that it contains the information about completed courses and other study attainments.

If the **Master's degree is not completed by the deadline of application time**, an up-to-date transcript of study records should be attached to the application.

4. Study transcript of doctoral degree

If you already have a study right in the EXACTUS doctoral programme, you should upload an up-to-date study transcript for the doctoral degree from Peppi study system and attach it to the application.