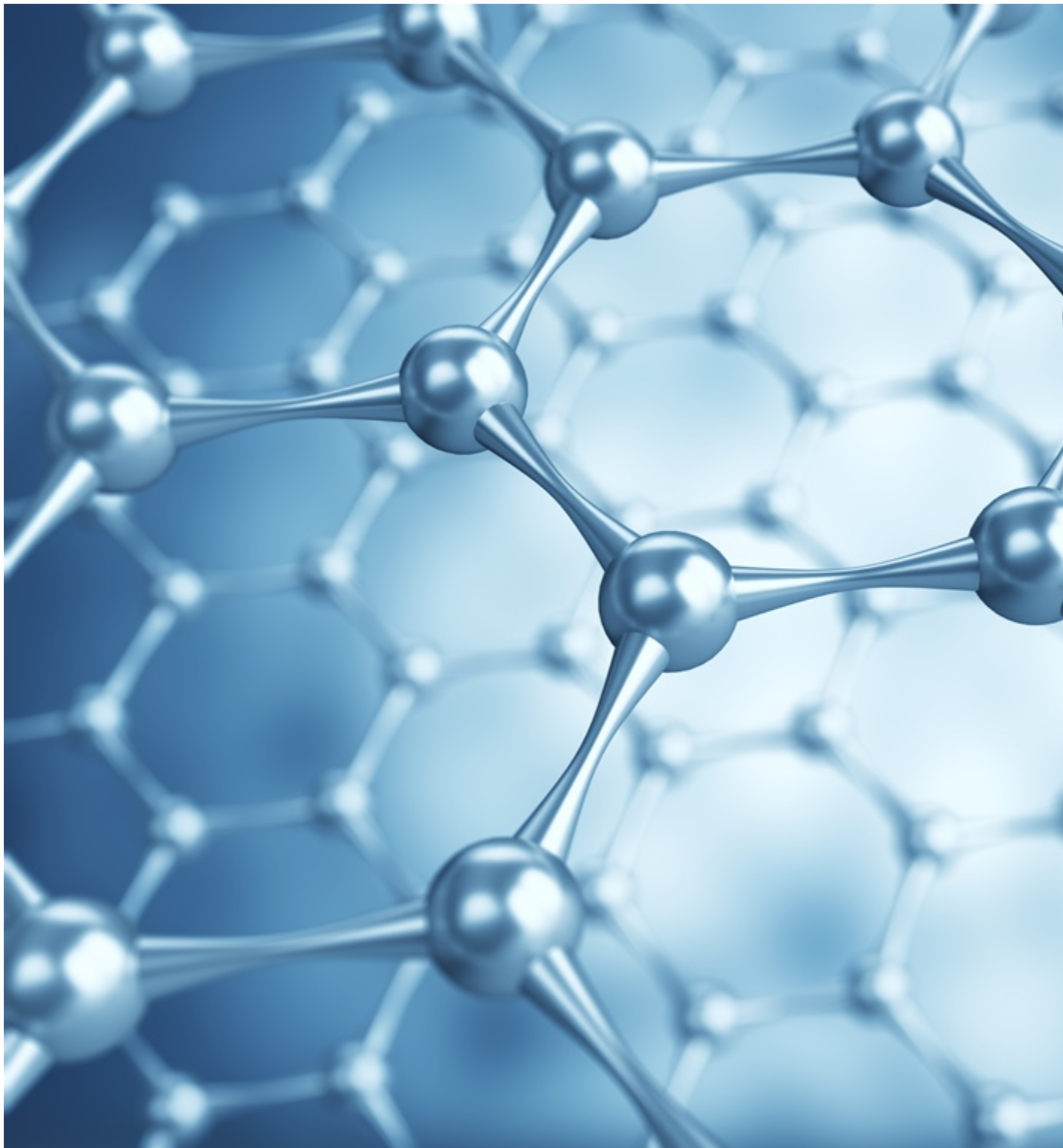


Physics (MSc)

Master



Universiteit
Leiden

Specialisations

- Research in Physics, Biological and Soft Matter Physics (MSc)
- Research in Physics, Cosmology (MSc)
- Research in Physics, pre-PhD ('Casimir') (MSc)
- Research in Physics, Quantum Matter and Optics (MSc)
- Research in Physics, theoretical (MSc)
- Research in Physics, Classical/Quantum Information (MSc)
- Physics and Education (MSc)
- Physics and Science Communication and Society (MSc)
- Physics and Business Studies (MSc)

The Physics master's programme offers you a research intensive tailor-made study path on current topics in experimental and theoretical physics at an institute of international renown.

Lindsay Spoor

Student, Research in Physics and Classical/Quantum Information



I was pleasantly surprised by the deep involvement in research-related events during my research project. This involvement has provided me with a comprehensive understanding of the overarching research field, contributing to my professional development and future orientation.

During my bachelor's in physics, I discovered a passion for programming-intensive courses, steering my interest toward a fusion of computer science and physics. Therefore, I chose the classical/quantum information specialization. The programme's structure, involving two research projects—one potentially an internship — enticed me. Also the flexibility in course selection beyond the specialization's core subjects appealed to me. It enabled the inclusion of diverse interests, like business courses, within my master's curriculum. I was pleasantly surprised by the deep involvement in research-related events during my research project. This involvement has provided me with a comprehensive understanding of the overarching research field, contributing to my professional development and future orientation. During my student time, I've realized that my passion lies in applying the practical knowledge and skills acquired during the physics programme to make a tangible societal impact, rather than pursuing an academic career. You can find the complete interview [here](#).

What does this master's programme entail?

The Physics master's programme is intimately related to the scientific research carried out at the [Leiden Institute of Physics](#). You will spend approximately 50% of your programme on research, as a member of one of our top-level international research groups. We offer five research specialisations, with emphasis on either experimental or theoretical physics, which train you as an independent researcher. We also offer three specialisations that put Physics in broader societal contexts and train you for careers where a Physics background is an asset. Each of these specialisations aims at providing a combination of research independence and content proficiency that fully prepares you for your professional development.

Learn more about the [Physics master's programme](#).

Discover why our students choose the Physics master's programme

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[Watch the video on the original website or](#)

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Why study Physics at Leiden University?

- The programme offers a wide choice of individual study paths that take into account individual needs and interests. You can either build a purely academic profile, or you may combine physics research with education, business studies or science communication.
- You will carry out at least one research project with one of the research groups of the Leiden Institute of Physics. Research at the department is at the forefront of fundamental modern Physics at an internationally competitive level.
- At the Leiden Institute of Physics you experience an open, inclusive, and collegial atmosphere. Your weekly routine includes attending colloquia of international speakers, partaking in symposia and participating in lively scientific discussions.

Find more reasons to choose [Physics at Leiden University](#).

Physics: the right master's programme for you?

Are you looking into furthering your education in fundamental questions in physics? Then our Physics master's programme is the right choice. Whether you are interested in experimental or theoretical research, or cosmology, we offer it all. You will be trained for a career in research within or outside academia. You can also choose for a more practical-oriented specialisation where you combine one year of Physics research with one year of training in business, communication or education.

Read more about the [entry requirements for Physics](#).

Chat with a student

Do you have a question about studying at Leiden University or student life in Leiden? Do you want more information about the Physics programme? Chat with a current student for answers to your questions!

Why Leiden University?

World-class research is integral part of the master's education. You obtain a Physics degree from an institute with an international reputation. Research in this programme is fundamental and curiosity-driven.

Education at a world class research institute

The Leiden Institute of Physics (LION) is one of the oldest physics institutes in the Netherlands. Renowned physicist like Lorentz, Kamerlingh-Onnes, Zeeman and van der Waals obtained their breakthrough results while working in Leiden. For over a century, many eminent scientists have been and are associated to LION as staff members, alumni and guests. Building on this tradition, we perform physics research and provide physics education at the highest level. Therefore you can expect excellent education and cutting edge research in Physics during your master's programme.

Broad spectrum of research topics

Research at LION covers a broad spectrum of subjects, ranging from cosmology to the mechanics of DNA, from the physics of jamming in granular materials to quantum nano-science, from protein folding to superlubricity. All topics are covered by joined efforts in theory and experiment. Further, the development of novel world-class instrumentation is signature for LION's experimental research effort. During your research project you will participate in one of our research groups. Many master's students obtain their degree with a publication in an international refereed journal.

Experimental and Theoretical Physics

Experimental physics research covers two domains: Biological and Soft Matter, and Quantum Matter and Optics. The Instituut-Lorentz is the home of theoretical physics that tackles topics as diverse as condensed matter, biophysics, string theory, and cosmology. It is our aim to have parallel theoretical and experimental activities in those research areas that we cover. There is close collaboration of theorists with experimentalists on many of the topics.

Faculty of Science

The Faculty of Science is a first-class research faculty with an excellent position in the basic disciplines of science. The current research and education programmes span the entire spectrum of science ranging from Mathematics and Statistical Science, Computer Science and Data Science, Astrophysics, Physics, Chemistry and Bio-Pharmaceutical Sciences to Biology and Environmental Sciences. Our science community is driven by their curiosity and desire to increase basic knowledge, for science and to contribute to the great societal challenges of today and tomorrow. Core values are scientific impact, technological innovation and relevance to society.

Study at a world-class university

Leiden University is the oldest university in the Netherlands and enjoys an excellent worldwide reputation built up over more than four centuries. Since 1575 we've provided sound personal education for hundreds of thousands of students. We'll do our utmost to give you the best possible support. And if you can and want to do more, we'll challenge you every step of the way. For many years, we've been among the leaders in Dutch university rankings and we are currently to be found in a variety of [top international rankings](#) too.

[More reasons to choose Leiden University](#)

About the programme

The MSc programme Physics offers 5 research-oriented specialisations where you can focus on Theoretical Physics, Quantum Matter and Optics, Biological and Soft Matter, Cosmology or Casimir pre-PhD. You can also combine Physics with education, management or science communication.

Programme overview

The MSc Physics programme offers eight specialisations:

- [Theoretical Physics](#): you follow a two-year programme consisting of 3/5ths of coursework and one 9month long project that prepares you for scientific research towards a PhD in a broad range of topics in theoretical Physics.
- [Quantum Matter and Optics](#): you follow a programme in experimental physics consisting of 50% course work and 2 research projects in Condensed Matter problems.
- [Biological and Soft Matter Physics](#): you follow a programme in experimental physics consisting of 50% coursework and 2 research projects in Biophysics or Soft Matter.
- [Cosmology](#): You follow a joined programme with the department of Astronomy where you cover all aspects of modern astrophysics and carry out research projects tackling observation, interpretation, simulation and theory.
- [Casimir pre-PhD](#): After entry to one of the Experimental or Theoretical Physics specialisations, you can be selected to the program that gives you the opportunity to raise the funds for a PhD on a topic of choice within the Casimir Research School (a collaboration between the University of Leiden and the Technical University of Delft) .
- [Physics and Business Studies](#): You combine a training in Physics (1 year of courses and research project) with courses in business and entrepreneurship and an internship with a company
- [Physics and Education \(in Dutch\)](#): You combine a training in Physics (1 year of courses and research project) with courses in education and a teaching internship at a Dutch highschool. It leads to a teaching qualification valid for secondary education.
- [Physics and Science Communication and Society \(SCS\)](#): You combine a training in Physics (1 year of coursework and research project) with courses in communication and relating science to the public.

The research-oriented master's specialisations consist of two components: courses and research. Depending on your specialisation, the programme consists of:

- Mandatory courses (15-30 EC)
- Electives (27-45 EC)
- One or two research projects (48-60 EC)

Find out more about the research-oriented specialisations:

- [Theoretical Physics Research](#)
- [Cosmology](#)
- [Quantum Matter and Optics](#)
- [Biological and Soft Matter](#)
- [Casimir Pre-PhD](#)

These three specialisations combine at least one year of the Physics research curriculum (minimally 60 EC) with training to prepare you for specific science-related careers (minimally 45 EC).

Find out more about the mixed specialisations:

- [Physics and Education](#)
- [Physics and Business Studies](#)
- [Physics and Science Communication and Society](#)

Educational methods

- Lectures
- Working groups
- Presentations
- Individual papers
- Colloquium
- Lab work
- Literature study

Study guidance

The Physics MSc programme has a small intake and a relatively large staff to student ratio. It can thus afford to provide students with individualized attention. The study programme is discussed and decided with the Study Advisor who remains a reference point throughout the programme. Interaction during classes is informal and strongly encouraged. Besides direct interaction with the lecturer, classes are supported by PhD students and often post-docs. Interaction during the research project(s) is direct and informal and takes place within a small group of which an MSc student is integral part. There are regular group meetings. Interaction often extends outside office hours and incorporates social events.

Extra-curricular

Are you interested in taking up an extra challenge during your master's programme? You can develop your personal leadership style or study abroad. Would you like to experience education at Leiden University up close before starting your master's? Apply for one of our Summer School programmes.

Master Honours Education

Are you a curious and motivated master's student? The Honours Academy of Leiden University offers various kinds of extracurricular education, ranging from long-running programmes to short-term courses.

Leiden Leadership Programme

Are you interested in a leadership challenge? Join the [Leiden Leadership Programme](#) (LLP). This one-year programme will equip you with the leadership knowledge, insights and skills you need to increase your

societal impact. You further your personal development through trainings, seminars and a practical assignment within an organisation, in which you learn to cooperate intensively with other professionals. With the LLP, you earn 15 EC in addition to your regular master's degree.

Master Honours Classes & Challenges

Would you like to further develop your academic skills and societal awareness? Join one of our [Master Honours Classes & Challenges](#). In a small-scale, interdisciplinary course, you will tackle a complex issue for society or for a specific partner organisation. You will learn about the latest scientific insights concerning the topic and cooperate in a practical setting, together with students from many different backgrounds. There are Master Honours Classes on offer for 5 or 10 EC.

The Leiden/ESA Astrophysics Programme for Summer Students

The Leiden/ESA Astrophysics Programme for Summer Students (LEAPS) is the opportunity for students with an interest in astronomy and astrophysics to perform a 10 - 12 week summer research project in collaboration with a research scientist from Leiden Observatory or ESA. If you are interested in the Physics Cosmology MSc programme, taking this summer course is a good opportunity to get acquainted with the educational and research opportunities within the institute. [Read more](#)

Summer School: Modern Physics at all scales

Present day physics stretches from better understanding of the evolution of the universe to the physics of condensed matter, biological processes, soft matter and metamaterials. The summer programme will highlight aspects of these fields. If you are interested in the Physics Masters programme and the experimental and theoretical research opportunities offered within the Leiden Institute of Physics (LION) this is an excellent opportunity to get to know the programme. [Read more](#)

Study abroad

Because of the tailor made construction of the programme students get the opportunity to study abroad. There is the option to follow elective courses abroad. You can also conduct a research project abroad, at another university or in industry.

Career prospects

With your Physics degree you are well prepared for broad array of career prospects in research or industry. The master degree is an excellent stepping stone for pursuing a PhD degree.

Acquired skills and competence

The goal of each programme is to train you as an independent researcher, and to develop the necessary skills and proficiency to advance your career. After graduating you will have excellent knowledge of fundamental Physics and highly developed curiosity-driven research skills. You will be a creative and independent scientist who is ready to continue in research. The research specialisations are an excellent stepping-stone for graduates with the ambition and aspiration to pursue a PhD degree.

Career

After completing the Physics master's programme you will have a broad array of career prospects. All students with a Master of Science in Physics are admissible to a PhD programme. If you have the desire to apply your knowledge of Physics outside the university, there are ample job possibilities in high-tech industry, software and consultancy companies worldwide, or a career as a teacher, science communicator or science policy maker.

Career preparation

Leiden University offers you several services related to career orientation and job application skills.

Science Career Service

Are you looking for career advice? Get in touch with our science career advisor. The Science Career Service supports students of the Science Faculty in their career orientation and making effective career decisions during their study. We offer services such as consultation hours, individual appointments with the career counselor and advice on your CV or motivation letter.

Science Career Event

Whether you are actively looking forward to meet interesting employers, or even if you have no idea what your career will look like yet, the Science Career Event gives you a chance to speak with a large number of employers. Every year the Science Career Event is organized by students of the Faculty of Science. During this event you can get your resume checked, participate in a workshop or speed date with a potential employer to discuss possibilities in the near future. The Science Career Event is the ideal day to orient yourself on career possibilities.

The Mentor Network

If you have questions about the job market, you can get in touch with Leiden alumni who are happy to offer their advice. On the Mentor Network platform you can view the profiles of around 650 alumni. Once you have found someone you would like to contact for advice, you can send him or her a request for assistance.

Master's application and admission

Find out how to apply for Physics at Leiden University by following our step-by-step guide.

Step-by-step guide

This guide clearly explains the steps you need to take to apply, and the subsequent admission process.

- Step 1: [Check the admission requirements.](#)
- Step 2: [Check the application deadlines.](#)
- Step 3: [Collect the required documents.](#)
- Step 4: [Start your application.](#)
- Step 5: [Pay your tuition fees](#)
- Step 6: [Prepare for your studies at Leiden University](#)

Admission requirements

To be eligible for Physics at Leiden University, you must meet the following admission requirements.

Diploma requirements

If you have a bachelor's degree in Physics (Natuurkunde) or a Physics-related programme from any research university in the Netherlands, you are eligible to apply.

Admission is under the provision that you have sufficient in-depth knowledge, and theoretical/mathematical skills on topics like quantum physics, electrodynamics, statistical physics, and complex analysis, equivalent to those of the undergraduate courses of the Leiden BSc Physics curriculum.

Further on, please note that:

For the specialization Research in Physics, Cosmology, you must also have knowledge of “Physics of elementary particles” at undergraduate level.

The Casimir pre-PhD specialisation is an honour's track that students can enter only after the first semester. For this specialisation the following admission requirements apply:

- A grade point average of at least 7.5 in the first semester of the Physics programme.
- Admission to the second year is on the condition that all courses of the first year (60 EC) have been successfully completed.

The Board of Admissions will assess whether your degree and background are sufficiently related to the Dutch BSc degree in Physics (and, if applicable, whether you meet the additional requirement for certain specialisations).

If you have a bachelor's degree that does *not* meet the requirements specified above, you may be eligible for an individual Pre-Master's Programme tailored to your individual background. If you have successfully met the requirements of the imposed [Pre-Master's Programme](#), you will be admitted to the master's programme.

For more information, please contact the [Physics study advisor](#).

If you have a degree in Dutch higher vocational education (hbo) in Technische Natuurkunde, admission can be considered upon completion of a pre-master's programme.

The Board of Admissions will assess whether your degree and background are sufficiently related to the Dutch BSc degree in Physics (and, if applicable, whether you meet the additional requirement for certain specialisations).

If you have a bachelor's degree that does *not* meet the requirements specified above, you may be eligible for an individual Pre-Master's Programme tailored to your individual background. If you have successfully met the requirements of the imposed [Pre-Master's Programme](#), you will be admitted to the master's programme.

For more information, please contact the [Physics study advisor](#).

If you have a bachelor's degree in Physics (Natuurkunde) or a Physics-related programme from a foreign research university with a level similar to Dutch universities, you are eligible to apply.

Admission is under the provision that you have sufficient in-depth knowledge, and theoretical/mathematical skills on topics like quantum physics, electrodynamics, statistical physics, and complex analysis, equivalent to those of the undergraduate courses of the Leiden BSc Physics curriculum.

Further on, please note that:

For the specialization Research in Physics, Cosmology, you must also have knowledge of "Physics of elementary particles" at undergraduate level.

The Casimir pre-PhD specialisation is an honour's track that students can enter only after the first semester. For this specialisation the following admission requirements apply:

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The Board of Admissions will assess whether your degree and background are sufficiently related to the Dutch BSc degree in Physics (and, if applicable, whether you meet the additional requirement for certain specialisations).

If you have a bachelor's degree that does *not* meet the requirements specified above, you may be eligible for an individual Pre-Master's Programme tailored to your individual background. If you have successfully met the requirements of the imposed [Pre-Master's Programme](#), you will be admitted to the master's programme.

For more information, please contact the [Physics study advisor](#).

Candidates without an adequate degree in Physics who have in other ways covered the appropriate material* in a demonstrable way (i.e., having taken exams) will be evaluated on an individual basis.

* *An appropriate study program should cover most of the following:*

Math:

- Multivariate calculus, ordinary and partial differential equations, complex analysis, Fourier transforms, special functions
- Real and Complex vector spaces, linear transformations, orthonormal bases, basis transformations, quadratic and Hermitian forms, spectral methods

Classical Mechanics:

- Lagrangian and Hamiltonian formalisms.

Special Theory of Relativity**Electromagnetism:**

Electrical and magnetic fields, Maxwell's equations; wave theory of light, propagation of EM waves in media.

Statistical Physics:

Thermal equilibrium and equipartition theorem; entropy and microcanonical ensemble, free energy, canonical ensemble, partition functions, Maxwell relations; ideal gases, elasticity, Hooke's law; magnetization and magnetic susceptibility; Ising model; mean-field solution; macrocanonical ensemble, Grand free energy.

Quantum Mechanics:

Schrödinger equation, 1D stationary states, Hilbert space, 3D spherically symmetric systems, H atom, angular momentum, spin; including probability functions, operators, Dirac notation, eigenvalue problem; many particle systems; H-like atoms, Fermi-Dirac and Bose-Einstein statistics; blackbody radiation; fine structure, Zeeman and Stark effects; time dependent perturbation theory; quantum theory of radiation (Einstein coefficients).

The specialisation 'Cosmology' also requires knowledge of 'Physics of Elementary Particles' at undergraduate level.

Language requirements

In order to successfully participate in this programme, you must be proficient in English. The following requirements apply*:

- IELTS: minimum 6.5, with a minimum of 6.0 for each of the components Listening, Reading, Writing and Speaking
- TOEFL: internet based 90, with a minimum of 20 for each of the components Listening, Reading, Writing and Speaking

The test result may not be older than two years at the time of enrolment for the programme.

***Please note:** You do **not** have to submit proof of proficiency if you have

- An International Baccalaureate diploma from a programme taught in English (or an IB diploma with “English A”);
- A diploma of secondary or higher education completed in Australia, Canada (with the exception of French-language programmes in Canada), Ireland, Malta, New Zealand, Singapore, the United Kingdom, the United States or South Africa;
- A diploma of an English-taught university degree programme completed at a Dutch research university;
- A Dutch pre-university education (vwo) diploma.

For detailed information about which English qualifications are accepted, as well as the relevant exemption criteria, refer to [English language proficiency](#).

The following requirements apply:

- [IELTS](#) Academic modules only, on paper or on computer: 6.5 overall, with at least 6.0 for each separate component score.
 - We do **not** accept [IELTS Academic online](#).
 - We do **not** accept IELTS General Training or IELTS Indicator.
- [TOEFL](#) internet based: 90 overall, with at least 20 for each separate component.
 - We are **not** able to accept The TOEFL IBT Home Edition™, except in the following situations only:
You took the test before 1 Sept 2022 (and it is not more than 2 years old), or you are unable to take an in-person test on location because test centres are inaccessible or closed due to unsafe conditions in a country.
 - We do **not** accept the following types of test: TOEFL My Best™ scores (multiple test scores combined), TOEFL Essentials™ or institutional tests such as ITP.
- [Cambridge English Exam](#) C2 Proficiency, or C1 Advanced (180), with a minimum score of 169 for each separate component.

Note that English test results may **not** be more than two years old.

You do not have to submit an English proficiency test if you have completed your education in the USA, UK, Ireland, New Zealand, Australia, Canada (except French-taught programmes in Canada) Singapore, South-Africa or Malta; or if you have obtained an English-taught International Baccalaureate™; or if you have completed a Dutch VWO diploma or an English-taught bachelor at a Dutch research university.

For detailed information, including exemption criteria and methods of submission, refer to [English language proficiency](#).

The education component of this master's programme is taught in Dutch. All applicants that have not achieved a Secondary Education qualification in the Netherlands, have to demonstrate their Dutch communication skills. The level of Dutch is assessed through an advanced Dutch language exam. For more information about the exam: [Admission Exam TUL Advanced](#).

A Dutch as a Second Language Certificate (Certificaat Nederlands als Vreemde Taal) at Educatief Startbekwaam or Educatief Professioneel level is also sufficient to meet the language requirement.

Mind: after completion of the Education specialisation you obtain a qualifications to be a teacher in the Netherlands.

We expect students to bring a regular laptop running Windows (or running Linux for certain study programmes – check your course information). MacOS may in most cases also suffice (with Parallels for Windows installed), but not all specialized applications may be supported, and less support may be available.

- Windows 11 compatible – 64-bits (or Linux for some study programmes)
- Processor/CPU – modern, medium range
- Memory/RAM – 8 GB, if possible 16 GB
- Storage – 512 GB, if possible 1 TB

[>> Go to the next step: Check the application deadlines](#)

Application deadlines

Application deadlines

- If you need a visa or residence permit, you must apply for admission before **1 April**. The same deadline applies to students who already have a Dutch residence permit for study purposes and need to extend it.
- If you do not need a visa or residence permit, you must apply for admission before **15 May**.
- If you need a visa or residence permit, you must apply for admission before **15 October**.
- If you do not need a visa or residence permit, you must apply for admission before **15 November**.

Application start and deadline

It is possible to start studying in both September and February. However, starting in September is highly recommended because otherwise the programme contains a lot of self-study in the first semester. Therefore, for starting dates other than in September, the Board of Admissions will judge whether the candidate's academic background provides sufficient confidence that the candidate will be able to complete the Master's programme in two years.

Apply early!

If you do not have a Dutch diploma that grants direct admission or you need to meet additional admission criteria, you'll have to complete a two-part application procedure:

- First register your application(s) in the national system Studielink.
- A day later you will receive log-in details for Leiden University's application system (uSis), where you can complete your application.

You must submit your application via Leiden University's application system (uSis), before the deadlines mentioned above. So don't delay; if you haven't registered in Studielink and activated your uSis account in time to apply by the deadline, you'll miss out!

Other deadlines

Leiden University reserves a limited number of rooms each year for international students. However, as the number of housing requests always greatly exceeds the number of rooms available, we strongly recommend that you also look into other housing options at the same time. [Read more about how and when to arrange housing](#). If you want to request accommodation via Leiden University, submit both your application for admission and your housing request well before the deadlines! Accommodation is offered on a first-come first-served basis and is not guaranteed. You don't have to await admission before requesting housing.

If you want to apply for a scholarship, grant or loan, please bear in mind that different deadlines apply, and these deadlines can often be earlier. Deadlines vary per scholarship. Visit the [scholarship website](#) for more details.

[>> Go to the next step: Collect the required documents](#)

Required documents

When you apply for admission, you'll be asked to submit several documents.

Note: If you have a Dutch diploma that grants direct admission, you will generally *not* be asked to submit additional documents.

Required application documents

You'll need to submit the following documents:

Please upload a copy of the page(s) in your passport containing your personal details and photograph. If you are from the EU/EEA, you can submit a copy of your identity card instead. Please upload copies of both sides.

If you are a non-EU/EEA national already living in the Netherlands, upload copies of both sides of your Dutch residence permit.

Your CV (curriculum vitae) must be written in English and should contain your basic personal data, as well as a clear overview of your educational and professional history to date.

You can apply for admission before receiving the results of your English language test. However, a sufficient result will then be a condition of your eventual admission. Of course, if you already have your English language test results, you can upload them directly.

- Digital copies of diplomas and transcripts are initially required. Once you have been admitted, we will inform you how to submit certified copies.
- The documents must be in the original language. If they are not in English, Dutch, German or French, they must be accompanied by official translations into one of these languages.
- If you have not yet completed your current programme, state your expected graduation date and submit copies of all transcripts obtained to date plus a list of subjects still to be completed.

*Please note that if you would like to apply for a **scholarship** with this programme, you may need to upload additional documents with your application. Please inform yourself [here](#).*

[>> Go to the next step: Step 4: Start your application](#)

Additional documents for this programme:

In this letter you are asked to explain in writing that you possess the same level of knowledge, understanding and skills as applicants who are holding a Bachelor's degree in Physics (Natuurkunde) or a Physics-related programme from any research university in the Netherlands.

Application procedure

The application procedure is broken down into three parts.

Part 1. Application in Studielink

All students applying for a degree programme at Leiden University must start the application process in Studielink, the national online registration system for students wishing to follow a degree programme at a Dutch university. Studielink is open for applications from 1 October in the year preceding the academic year in which you wish to start.

1. Go to [Studielink](#) and enter your details according to the instructions provided. For this step you will need:

- a copy of your valid passport or European ID card, or

- if you are a Dutch resident, your [DigiD](#)

Be aware! If you wish to apply for a specialisation of a master's programme: first select the master's programme in Studielink, then select the specialisation for which you wish to apply in Step 4 (Institutional Questions) in Studielink.

2. Within two days you will receive:

- an email with information on the next steps you'll need to take;
- your university ULCN student account details (unless, of course, you already have a ULCN account)
- the link to Leiden University's online application portal (uSis)

After receiving your ULCN student account details, log into Leiden University's online application portal (uSis), using the link provided. Here you can view the status of your application, which will be one of two possibilities.

1. You can be directly admitted

If your (Dutch) diploma grants you direct admission, Leiden University's online application portal (uSis) will let you know. The portal provides an overview of what you have to do to complete your application, for example arranging housing, scholarships, applying for a visa/residence permit and insurances. Please follow the instructions carefully and proceed to step 3 Student registration.

2. You cannot be directly admitted: additional action is required

If you do not have a (Dutch) diploma that grants you direct admission, we will require additional documents to allow us to decide about your application. The online application portal (uSis) will tell you this and explain how to do so. See also Part 2: Admission to Leiden University.

Part 2. Admission to Leiden University

If you cannot be directly admitted, you must apply for admission via Leiden University's online application portal (uSis). Please follow all steps below.

In our online application portal (uSis) you can finalise your application by uploading the necessary documents and answering a few questions. This portal provides an overview of what you need to do to complete your admission application. Please follow the instructions carefully and make sure to include all the items that are asked for. We strongly recommend that you complete your application well in advance of the application deadline.

All applicants with an international degree must pay a **non-refundable** €100 application fee, which entitles you to apply for up to three programmes/specialisations in the same academic year. We cannot start processing your application until we receive this application fee, so please pay it as soon as possible. The online application system explains how you can pay it.

Can I be exempted from paying the application fee?

You do *not* have to pay the application fee if:

- You are following, or have completed, a bachelor's degree at a Dutch university (of applied sciences).
- You have previously registered as an exchange, bachelor's, master's or pre-master's student at Leiden University.
- You have previously been admitted to **the same** degree programme at Leiden University, but you decided to postpone your studies. This does *not* apply if you are applying for a different study programme or specialisation.
- You have refugee status in the Netherlands (with a residence permit for asylum).

Exemptions cannot be granted for any other reasons.

After you have submitted your application, the online application portal (uSis) will, if applicable, ask you if you want to apply for student housing, a visa/residence permit or a scholarship. Be sure to make a careful note of the relevant deadlines for these options.

After receiving your application fee payment (if applicable), the Admissions Office will check whether all the necessary documents have been uploaded and they will inform you by email whether any further items are required. The Board of Admissions of the faculty will then:

- decide whether you meet the admission requirements for the programme;
- strive to issue a decision on your completed application within four to six weeks of the University receiving it.

Once a decision has been reached you will be informed by email. You can view your admission status in the online application portal (uSis).

There are three possible outcomes:

1. **You are admitted**
You have met all conditions for admission.
2. **You are conditionally admitted**
You will be admitted, provided that you meet certain conditions. These conditions will be specified in the online application portal (uSis).
3. **You are not admitted**

The reason(s) for non-admission will be clearly stated in the online application portal (uSis). If you are informed that you have been (conditionally) admitted, you will have to take a number of additional steps.

If you are (conditionally) admitted, the Admissions Office will ask you to confirm whether you will join the study programme. You can do so in the online application portal (uSis).

1. Go to '[Application study programme](#)' in the online application portal (uSis).
2. Open the 'Confirm' screen. Here you will see three options:
 - Yes, I want to study at Leiden University.
 - No, I no longer wish to study at Leiden University and hereby withdraw my application.
 - Maybe later; I do not wish to start this semester/academic year. I would like to receive further instructions by email.

The sooner the better

Confirm attendance as soon as possible, to avoid missing other important deadlines and information about your study programme.

Changing your mind

You can still change your mind if necessary, either in uSis or by contacting the Admissions Office [master team](#).

Deadline final decision

Do you need a student visa or residence permit? You can only request one after confirming attendance. So make sure to confirm attendance before the [visa/residence permit deadline](#).

If you don't need a visa or residence permit, the latest deadline for confirming attendance is before the start date of your study programme.

Part 3. Student registration

If you've been (conditionally) admitted, follow these steps to register as a student at Leiden University:

Check in the online application portal (uSis) whether you need to submit any documents to meet the conditions of your admission. Instructions on how to do so will be provided in uSis.

Arrange the payment of your [tuition fee](#) before the official start date of your programme. You will receive instructions and information on the available payment methods by email.

If you are an international student, go to the [Prepare your stay](#) page of our website for information about the practical matters you should take care of before and upon arrival. These include, for example, arranging housing, scholarships, applying for a visa/residence permit and insurances.

[>> Go to the next step. Step 5: Pay your tuition fees](#)

Pre-master's

If you are keen on pursuing an MSc degree in Physics but you do not meet the admission requirements, a pre-MSc programme may be the right option.

A pre-MSc programme is designed to remedy deficiencies of a related BSc degree (HBO Technische Natuurkunde, an Engineering or other degrees that will have given you the basic knowledge and skills of at least the 1st year of the Leiden Physics program).

It consists of maximally 60EC, is tailored to your background, and is agreed with the Study Advisor. It will cover and strengthen any missing topics from the required BSc Physics courses and may include a selection of Physics elective courses.

In order to be considered for a pre-MSc, you should apply for an MSc degree and explain in your cover (motivation) letter that you wish to be considered for admission to the MSc after completing a pre-MSc program. You should provide a comparison of your BSc degree curriculum with that of the mandatory courses of the Leiden Physics program. The Board of Admissions will evaluate your application and –if appropriate- will accord a pre-Master programme. Completion of the agreed programme within the agreed timespan will make you admissible to the MSc.

The programme will cover the topics described under [Admission Requirements/ Other Diploma's](#)

You can find the curriculum of the Physics BSc programme in [our e-Prospectus](#)

Tuition fees and Scholarships

Your tuition fee depends on a number of factors, such as your nationality and your previous Dutch higher-education qualifications.

The tuition fees for the academic year 2023-2024 are:

- Dutch, EU/EEA, Swiss and Surinamese students: €2,314* per year
- Non-EU/EEA students €19,600 per year
- Second Dutch master's programme: €15,400 per year

The tuition fees for the academic year 2024-2025 are:

- Dutch, EU/EEA, Swiss and Surinamese students: €2,530 per year
- Non-EU/EEA students €21,200 per year
- Second Dutch master's programme: €16,300 per year

More information about tuition fees

The tuition fee for this programme is €2,314 for the academic year 2023-2024 (statutory fee).

The tuition fee for this programme is €2,530 for the academic year 2024-2025 (statutory fee).

This tuition fee applies if this is your first master's programme and you are a national of one of the following countries:

Austria	Latvia
Belgium	Liechtenstein
Bulgaria	Lithuania
Croatia	Luxembourg
Cyprus	Malta
Czech Republic	Norway
Denmark	Poland
Estonia	Portugal
Finland	Romania
France	Slovakia
Germany	Slovenia
Greece	Spain
Hungary	Suriname
Iceland	Sweden
Ireland	Switzerland
Italy	

The fee applies for both full-time and part-time study.

The tuition fee for this programme is €19,600 for the academic year 2023-2024 (institutional tuition fee).

The tuition fee for this programme is €21,200 for the academic year 2024-2025 (institutional tuition fee).

If you are not a national of an EEA country, Suriname or Switzerland, generally speaking you will have to pay an institutional tuition fee. This fee applies for both full-time and part-time study.

However, if, on the basis of your Dutch residence permit, you are eligible for student finance from the Dutch education agency (DUO) you are entitled to pay the statutory tuition fee. Information on qualifying residence permits can be found in the [DUO nationality chart](#).

Please note! If you will be studying at Leiden University via a cooperation agreement, the fees quoted in the agreement will apply.

Only applicable to EU/EEA, Swiss and Surinamese nationals.

The tuition fee for this programme is €15,400 for the academic year 2023-2024 (institutional tuition fee).

The tuition fee for this programme is €16,300 for the academic year 2024-2025 (institutional tuition fee).

If you are following a second Dutch master's programme you will generally have to pay an institutional tuition fee that is higher than the statutory tuition fee. Some exceptions apply.

Consult the [tuition fee flowchart for second master's programmes](#) to find out how much tuition fee you will have to pay.

Less than 45 EC

If you are going to follow a pre-master's or conversion programme after completing a bachelor's programme, and if the programme is less than 45 ECs, you will have to pay €39 per study credit (EC).

45 EC or more

For programmes of more than 45 ECs you will have to pay the statutory tuition fee. If the pre-master's or conversion programme is more than 60 ECs – and therefore longer than one year - or if you are going to

follow courses that are not part of your conversion programme, you will have to pay the institutional tuition fee for the programme in question (see second study programme). These fees apply to students of all nationalities.

Scholarships, grants and loans

Leiden University offers a wide range of scholarships for students from specific regions of the world, or for specific programmes. Leiden University also offers the Leiden University Excellence Scholarship (LExS), a programme specifically designed for non-EU/EEA students enrolling in a master's programme. [Find out more about scholarships, grants, loans and deadlines](#)

If you are an EU/EEA or Swiss national and under 30, you may be eligible for a [loan from the Dutch government](#) to cover your tuition fees.

Physics Scholarships

Apart from the [LExS](#) Scholarships, several scholarships are available specifically for Physics students. There is the [LION-Scholarship](#) for non-Dutch students.

[>> Go to the next step. Step 6: Prepare for your studies at Leiden University](#)

Prepare for your studies

You've been accepted! Leiden University looks forward to welcoming you as a new student. Your next step is to prepare for your studies. Below you can find some tips to help you get a head start as you embark on your studies at Leiden University.

For international students

If you are an international student, a wealth of information can be found on the '[Prepare your stay](#)' page of our website. This includes information about visas, housing, financial matters, what to arrange upon arrival, and much more.

For Dutch students

- The '[student website](#)' page on Leiden University's student website contains information about practical aspects, introduction weeks and student associations. It's also a handy source of study-related information and advice.
- For detailed information about courses, schedules and reading materials, check out the [Prospectus](#).

Sign up for the introduction week in [Leiden \(OWL\)](#) or [The Hague \(HOP\)](#)! It's the best way to get acquainted with student life and the student cities of Leiden and The Hague.

Your student card is your proof of registration as a student of Leiden University. You can find your digital student card in the Leiden University app three days after your student registration is finalised. Read more about your student card [here](#).

As soon as you receive notification that your student registration has been finalised you should apply for a Leiden University ID card, or LU-Card. It also serves as your library card, print & copy card and access pass. Read more about applying for an LU-card [here](#).

Student life

Your time at Leiden is about more than just studying. Some of your best experiences will stem from being a part of our lively and diverse student community, as well as from life in the beautiful city of Leiden.

Life in Leiden

Quaint, picturesque and the perfect size, Leiden is an idyllic place to spend your university days. You will soon become familiar with the dozens of cafes, shops and bars that line the leafy canals, as well as its year-round line-up of cultural events. For visits further afield, the major cities of The Hague and Amsterdam are a short train ride away, along with Schiphol Airport, which is just half an hour away by train.

Within the university's student community, our study and student associations organise a huge variety of social, cultural, and study events to keep you busy all year round. You can also join the University Sports Centre, which offers scheduled group sports and fitness classes amongst other activities.

Welcome and orientation programme

In August and February each year, Leiden University hosts the English-language Orientation Week Leiden (OWL), which welcomes both international and Dutch students. The OWL is an excellent way to get to know Leiden University, the city and to meet other students.



• New to the city and the university? Take part in the best introduction to the city, the university and your faculty: The OWL! Enjoy this week of fun, music, culture, sports, games and making new friends. It will be an unforgettable start of your studies!



• Our Hortus botanicus is a place where science is conducted, but it is equally popular for studying or relaxing. Come visit it!



Leiden is a lively, compact and safe city which is appreciated by national and international students alike. Everything is in reach within a 15 minutes bicycle ride.



• The city is located centrally between Netherland's biggest cities like Amsterdam, The Hague, Utrecht and Rotterdam, all easily reached by public transport.



• Enjoy strolling through the narrow cobbled streets and become familiar with the dozens of cafes, shops and bars that line the leafy canals.

De Leidsche Flesch

De Leidsche Flesch is the study association of the studies Computer Science, Physics, Astronomy and Mathematics. The main goals of the De Leidsche Flesch are to contribute to the interaction between its members and the scientific community and to contribute to the interaction between its members themselves. They organize a wide range of activities, like (lunch) lectures, excursions and study trips. They also try to acquaint you with job opportunities for after completing your study.

Good start of your programme at Leiden University

At the start of the academic year, the research in the department is showcased in a symposium. The department also facilitates the organization of an afternoon of food and drinks organized by first year students to promote get to know and team building. If you are a first year international student, you will get a buddy to help your way around at our programme.

Science Buddy Programme

The Science master's Buddy Programme has been set up by the Faculty of Science to help all international students who are new to the university to integrate quickly and easily into university life. Through the programme you will learn everything you need to know about the university, the student community, and the practical side of life in Leiden. Your buddy is your first connection in the Netherlands and can help you to find your way around. A few weeks before the start of your studies, you will get an invitation for the programme. After signing up, you will be matched to a student preferably from your own study programme.

Information activities

Get to know us through our online and in-person events for prospective students!



Student with laptop

Are you thinking about joining this Master's programme, and want to determine if it will be the right fit for you? Below, you can browse the events that we have coming up, and sign up to experience Leiden University and the programme for yourself. Alternatively, take a look at the Master Talks videos to find out more about the programme or check out our virtual campus tours!

Master Talks: Programme videos

On the [Master Talks: programme videos platform](#) you can find videos for each master's programme. This includes a video which gives a short introduction to the programme and after the Master's Online Open Days you will also be able to watch a recording of the programme presentation on the platform.

Upcoming events

Master's Online Open Days Autumn 2024

The annual Master's Online Open Days in autumn are your opportunity to learn everything you need to know about our master's programmes and how they can help you reach your goals. Attend talkshows or student presentations, meet our lecturers, learn about the careers of our graduates and hear first-hand the experiences of students and graduates on life at Leiden University.

[Sign up for the next Master's Online Open Days here!](#)

On Campus Master's Open Day Spring 2025

The **On Campus Master's Open Day** is your opportunity to learn everything you need to know about our master's programmes and how they can help you reach your goals. Attend **talkshows or student presentations**, meet our lecturers, learn about the careers of our graduates and hear first-hand the experiences of current students and graduates on life at Leiden University. Experience the atmosphere of our campus and ask all your questions at our **information market**! Some programmes also offer additional tours.

[Sign up for the next Master's Open Day here!](#)

This summer school of the Leiden Institute of Physics (LION), starting 15th July 2024, offers outstanding students the opportunity to discover the research frontiers of modern physics. The 8-day programme includes a series of seminars by renowned physicists, visits to research laboratories, and several social activities.

Bachelor students from all over the world in the last years of their studies come to Leiden to participate in a summer school filled with talks, lab tours and cultural events.

You can find more information about the Summer School and how to apply [here](#). Application deadline is 1 March 2024.

Get to know the campus

Check out our virtual campus tours, filmed in 360 degrees – by dragging the video, you can look around at the surroundings yourself. Below is the video recorded at the Science faculty, where most of your lectures will take place; you can also view other 360 campus tours of the various university faculties [here](#).

360 Campus tour: the Science faculty

Due to the selected cookie settings, we cannot show this video here.

[Watch the video on the original website or](#)

Accept cookies

Chat with a student!

Do you have a question about studying at Leiden University or student life in Leiden? Do you want more information about the Physics programme? Chat with a current student for answers to your questions!

Contact

Do you have any questions about the Physics master's programme? Please contact us.

Contact the programme

For further questions on academic matters, please contact the study advisor.

Study advisor

[Dr. H. Papathanassiou \(Hara\)](#)

Email: studyadvisor@physics.leidenuniv.nl

Phone: +31 (0)71 527 5764

Do you have questions about studying at Leiden University?

Do you want to know more about one or more programmes or about our information activities? The StudyLine is a source of information for students and is staffed by students. You can contact them by [mail](#) or by phone on +31 (0)71 527 11 11 on working days between 9.00 am and 17.00 pm.

Do you have questions on your admission and application?

For questions about your admission and application, you can contact the Student Information Centre. You can contact them by telephone on +31 (0)71 527 80 11 (daily between 11:00 am and 16:00 pm) or ask your question in the [online contact form](#).

Chat with a student

Do you have a question about studying at Leiden University or student life in Leiden? Do you want more information about the Physics programme? Chat with a current student for answers to your questions!