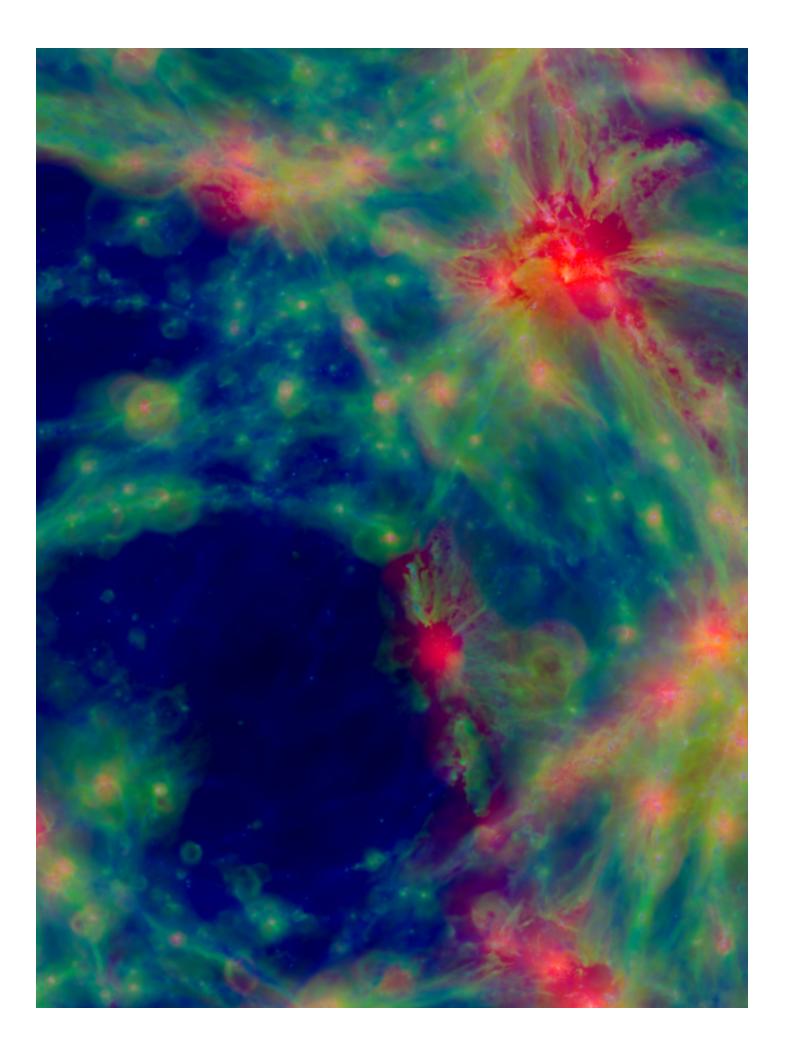
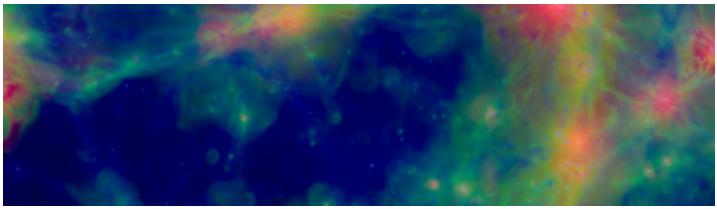
Astronomy (MSc)

Master







Discover the world at Leiden University

Specialisations

- Astronomy and Cosmology (MSc)
- Astronomy and Data Science (MSc)
- Astronomy and Education (MSc)
- Astronomy and Instrumentation (MSc)
- Astronomy and Science Communication and Society (MSc)
- Astronomy and Business Studies (MSc)
- Astronomy Research (MSc)

Students in our Astronomy programme are trained by leading experts in cutting-edge astronomical research. We incorporate in our educational programme observations and data from the world's foremost ground- and space-based telescopes as well as theoretical, computational and astrochemical modelling, large scale simulations, and laboratory experiments that mimic conditions in space. This two-year master's programme trains students to become experts in various fields of astronomy. We offer seven challenging specialisations, all of which can be tailored to suit your specific interests and ambitions. This will prepare you for a wide variety of careers within academia, industry and the public sector.



Why study Astronomy at Leiden University?

- Leiden Observatory has a very strong international reputation. The Observatory staff consists of award-winning experts leading in their research field, such as Kavli-Award winning Prof. Ewine van Dishoeck.
- We maintain close relations with astronomical institutes such as SRON, ASTRON and ESA-ESTEC. As a master's student you will get direct access to the world's best astronomical research facilities.
- Leiden University offers a welcoming environment and an open international community. Over 40% of the population of our master's programme consists of international students and we have a large international staff.
- For promising candidates from outside of the European Union, we are offering a €4.350 reduction of our tuition fee (this amount is subject to change each year).

Find out more reasons to choose Astronomy at Leiden University.

Jeger Broxterman

2nd Year Student from The Netherlands



I love studying Astronomy at Leiden University. The program provides a one-of-a-kind opportunity to explore the most exciting and fundamental questions regarding the entire universe. I value the freedom and flexibility that the programme offers that enables me to pursue my own interests. In addition, as a student it is possible to contribute to cutting-edge research and have access to state-of-the-art data from international collaborations. As a student, I feel valued and I truly appreciate the amount of personal interaction with the staff. They are always willing to listen to you and help with any suggestions you may come up with.

Simin Tong

2nd Year Student from China



Leiden University is definitely a place that you want to study at! With its campus scattering over the whole city, you will see a lot of local culture and historical architecture as you switch between buildings. The Master's programme offered by the prestigious Leiden Observatory is one of the best Master's programmes in Astronomy globally. There are various tracks that you can choose according to your own interest. The well-structured courses provided here allow you to explore different fields not only in Astronomy, but also in other relevant disciplines. The extensive research training conducted under the guidance of experienced and patient faculty members, starting from the first year, helps you gain experience and academic skills that are necessary to achieve your career goals.

Rojita Buddhacharya

1st Year Student from Nepal



When I was deciding on a Master's programme my mentors strongly recommended me to go to Leiden. By the end of my first semester here I understood why: it is one of the best universities to grow as an astronomer. All professors and teaching assistants are highly supportive of students and they inspire us to ask questions. Working on my research project is even more fun: I was surprised by how friendly and encouraging my supervisor is, and I get many chances to

discuss research questions and problems. There are also always opportunities to participate in lectures and presentations by world-famous scientists. The University is thoughtful of our mental well-being as well. They also provide proper guidance to choose career paths: both academic and non-academic. That's why I love being in Leiden.



Immersed in research from day one

From the very start of your master's programme, you will be involved in the research that is carried out at Leiden Observatory. Depending on your chosen specialisation you will carry out either one or two research projects, both of which will span at least half a year, one in each year of your master's programme. Every student will receive personal supervision by a member of our scientific staff and has access to a workspace in one of the flex-offices at the institute. While working on your research projects, you will work alongside your peers, as well as PhD students, postdocs and staff members. During your research projects you will become part of one of the existing research groups of Leiden Observatory and you will experience first-hand what it is like to carry out scientific research at an international astronomical institute. This experience will be invaluable if you decide to pursue an academic career. Succesful completion of this master's programme will give you a competative advantage in PhD applications worldwide, since Leiden Observatory is widely known to turn out master's and doctoral students of the highest quality.

Read more about our <u>Astronomy master's programme</u>.

Discover why our students choose the Astronomy master's programme

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

Watch the video on the original website or Accept cookies

World-class education in a vibrant student city

Leiden University is the oldest university of the Netherlands. It's buildings are located at several locations throughout Leiden, all at easy biking distance from each other. The centre of Leiden is small but lively, with plenty of places to meet up with your fellow students after class. It is also very easy to get from Leiden to other Dutch cities, with Amsterdam, Utrecht and The Hague only a short train ride away. Leiden is also within biking distance of the beach, where you can swim or go for a walk in the unique dune landscape along the Dutch coast.

Read more about Leiden as a student city.



Astronomy: the right master's programme for you?

Are you are interested in astronomy research within or outside academia? Do you want to add value to society through scientific and technological progress? Are you keen on solving complex matters and are you up for a challenge? Then our Leiden University Astronomy master's programme is designed for you.

Read more about the entry requirements for Astronomy.

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 Astronomy programme? Chat with a current student for answers to your questions!

Why Leiden University?

By effectively integrating word-class scientific research and excellent education, you will become a professional astronomer with an internationally recognized degree.

Education at a world class research institute

Leiden Observatory has a strong international reputation and is widely known to turn out masters and doctoral students of the highest quality. Students are trained by world-renowned astronomers including Kavli and Spinoza prize winner Prof. Ewine van Dishoeck, further Spinoza prize winners Prof. Marijn Franx and Prof. Xander Tielens, European Research Council (ERC) grant holders Prof. Ignas Snellen and Prof. Huub Röttgering and NWO-Vici grant holders Prof. Joop Schaye and Prof. Henk Hoekstra. Therefore, you can expect research at the cutting edge of modern astronomy as an integral part of the Astronomy master's programme.

Strong skill set

During the programme, you learn to perform academically sound research and evaluate scientific information independently and critically. Without exception, you actively participate in current research within the institute and are individually supervised by our international scientific staff. Students with a Leiden degree in Astronomy become strong communicators and collaborators and can easily operate in an international setting. You will acquire extensive astronomical research experience and highly advanced analytical and problem solving skills.

Access to the world's best observational facilities

Leiden astronomers have access to the foremost observational and computer facilities in the world, including the Hubble Space Telescope, ESO's Very Large Telescope, ALMA, Westerbork Synthesis Radio Telescope, XMM-Newton, Chandra, JVLA, LOFAR and others. On a daily basis, Astronomy master's students work with data directly obtained from Leiden research at these facilities. The Leiden Observatory also hosts unique astrochemistry and optics laboratories that are also open for master student's research projects.

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

Within the two-year Astronomy master's programme, you can choose from seven specialisations, ranging from fundamental or applied astronomy research in cosmology, instrumentation or data science, to combinations of astronomy research with education, management or science communication.

Overview of the Astronomy programme

The two-year Astronomy master's programme offers seven specialisations:

- <u>Astronomy Research</u>: you follow a tailor-made programme to become an independent and resourceful scientist.
- <u>Astronomy and Instrumentation:</u> obtain in-depth knowledge of state of the art approaches to develop high tech astronomy instruments.
- Astronomy and Data Science: focus on development and application of new data mining technologies, fully embracing modern astronomy as a data rich branch of science.
- <u>Astronomy and Cosmology:</u> discover all aspects of modern astrophysics, including extensive observation, interpretation, simulation and theory.
- <u>Astronomy and Business Studies:</u> combine training in astronomy with education in management and entrepreneurship.
- <u>Astronomy and Science Communication and Society:</u> combine research with all aspects of science communication, such as journalism and universe awareness education.
- <u>Astronomy and Education (taught partly in Dutch):</u> prepare yourself for a career in teaching science at high school level.

All Astronomy master's specialisations have their own curriculum with a wide variety of in-house Astronomy courses to tailor your own study path:

- Origin and Evolution of the Universe
- Interstellar Medium
- Galaxies: Structure, Dynamics and Evolution
- Stellar Structure and Evolution
- Computational Astrophysics
- Large Scale Structure and Galaxy Formation
- Star and Planet Formation
- Interacademy Courses of NOVA research school for astronomy

- Astronomical Telescopes and Instruments
- Astronomy from Space
- Detection of Light
- High Contrast Imaging
- Observational High-Energy Astrophysics
- Project Management for Scientists
- Radio Astronomy
- Observational Cosmology
- Astrochemistry
- Databases and Data Mining in Astronomy
- High-energy Astrophysics
- Gravitational Lensing
- Compact Objects and Accretion

Educational methods

- Lectures
- Working groups
- Practical classes
- Excursions
- Research

Assessment methods

- Written, oral and take home exams
- Homework assignments
- Presentations and colloquia
- Reports (scientific paper, literature study)

Student support

The favorable student–staff ratio guarantees a high degree of interaction with and personal attention from the (senior) staff. The Astronomy study advisor is available for individual and confidential study support. In addition, Astronomy master's students get their own desk and computer during their master research project. Therefore, close collaboration with supervisors and group members is guaranteed. Moreover, the Astronomy master's programme provides an informal atmosphere and a welcoming research community, in which social activities flourish.

Extra-curricular

Are you interested in taking up an extra challenge during your Astronomy master's programme? Have you thought about applying for our Summer School programme or are you interested in developing your personal leadership style?

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 <u>Leiden Leadership Programme</u> (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 <u>Master Honours Classes & Challenges</u>. 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.

Summer School

The Leiden/ESA Astrophysics Programme for Summer Students (LEAPS) is an 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 Astronomy master's programme, taking this summer course is a good opportunity to get acquainted with the educational and research opportunities within the institute. Read more

Study abroad

Gain international experience by taking courses or perform your Master's Research Project at a university abroad. Leiden Observatory has many international contacts and the institute is setting up exchange collaborations with universities in the United Kingdom, Poland and China.

Extra internship

Explore the world outside academia without missing out on any research in an extracurricular business internship within a company. You can also take the opportunity to perform an extra astronomy research internship at another university in the world.

Teaching assistant

We encourage you to support our teaching activities as a paid student teaching assistant. You will assist our lecturers in organising courses, practical classes and excursions for Astronomy bachelor's students. As a teaching assistant, you gain valuable experience to add to your resume. Also, it is a unique opportunity to get more familiar with the staff.

Career prospects

With a master's degree in Astronomy you are well prepared for jobs in research, industry and the public sector, including technological, financial and consultancy companies, research institutes, governments and science communication organizations.

Acquired skills and competence

With a Leiden degree in Astronomy you obtain an impressive skill set leading you to a top-level job quickly after graduation (see Beste Banen 2016). As a strong communicator and collaborator you can easily operate in an international setting. You have acquired extensive astronomical research experience and highly advanced analytical and problem solving skills. Their helicopter view and ability to prioritise enable astronomers to successfully engage in large multidisciplinary projects.

Career

Most graduates holding a MSc degree in Astronomy from Leiden University find work in many different capacities, including:

- Research: universities, observatories, research institutes
- Industry and consultancy: ICT, R&D, telecom, high technology, aerospace
- Finance: banking, insurance, pension funds
- Public sector: governments, policy makers, high schools
- Science communication: journalism, popular writing, museums

Typical jobs for Astronomy graduates include:

- Scientific researcher (postdoc, research fellow, professor)
- R&D engineer
- Consultant
- Data scientist, statistician
- Policy advisor, public information officer (e.g. Ministry of Foreign Affairs)
- High school physics teacher
- Scientific editor for magazines, newspapers and other media

Research at Leiden Observatory

If you want to get more deeply involved in research after graduating in Astronomy, consider pursuing a PhD at Leiden Observatory. If you have completed the Leiden master's degree programme in Astronomy, you are directly eligible for admission to our PhD programme. Read more.

Career preparation

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

Preparation for the job market is integrated in the Astronomy master's programme. You will learn what skills and competences are needed for finding a future job that fits you. We guide you in getting to know yourself and help you to develop your personal and professional skills. You can also participate in astronomy-specific career events to find out what job sector appeals to you the most. In addition, our Study Advisor is always available to help you in shaping your study and career path.

Astronomy Career Information Meetings

Learn how to get a PhD at an astronomical research institute, find out what it takes to get hired by a company as an engineer or a consultant and ask questions to PhD students, CEO's, lecturers and job coaches. These meetings are organized twice a year by the Education Office Astronomy.

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 you 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 Astronomy 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 Astronomy at Leiden University, you must meet the following admission requirements.

Diploma requirements

You are eligible to apply if you have

- a bachelor's degree in Astronomy (Sterrenkunde) from any research university in the Netherlands OR
- a bachelor's degree in an Astronomy-related programme from a research university in the Netherlands.

Admission to this master is under the provision that you have in-depth knowledge comparable to undergraduate courses of the Leiden Astronomy curriculum, i.e. with:

- a theoretical and mathematical emphasis, including quantum physics, electrodynamics, statistical physics, and complex analysis.
- courses in the field of Astronomy.
- and with proficiency in programming, preferably in the Python language.

Astronomy and Cosmology: For this specialization, you must additionally have knowledge of "Physics of elementary particles" at undergraduate level.

Astronomy and Data Science: For this specialization, proven fluency in a 3rd generation programming language (e.g. Python, C++, ..) is required. Additionally, knowledge of "Statistics" at undergraduate level is required.

The Board of Admissions will assess whether your degree and background are sufficiently related to the BSc degrees in Astronomy (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 <u>Pre-Master's Programme</u>, you will be admitted to the master's programme.

For more information, please contact the <u>Astronomy study advisor</u>.

If you have a bachelor's degree in Astronomy or in an Astronomy-related programme from a foreign research university with a level similar to Dutch universities, you are eligible to apply under the condition that you have in-depth knowledge (comparable to undergraduate courses of the Leiden Astronomy curriculum) with:

- a theoretical and mathematical emphasis, including quantum physics, electrodynamics, statistical physics, and complex analysis.
- courses in the field of Astronomy.
- and with proficiency in programming, preferably in the Python language.

Astronomy and Cosmology: For this specialization, you must additionally have knowledge of "Physics of elementary particles" at undergraduate level.

Astronomy and Data Science: For this specialization, proven fluency in a 3rd generation programming language (e.g. Python, C++, ..) is required. Additionally, knowledge of "Statistics" at undergraduate level is required.

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For more information, please contact the <u>Astronomy study advisor</u>.

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:

- <u>IELTS</u> 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 <u>IELTS Academic online</u>.
 - 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 EditionTM, 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 BestTM scores (multiple test scores combined), TOEFL EssentialsTM or institutional tests such as ITP.
- <u>Cambridge English Exam</u> 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 BaccalaureateTM; 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 <u>English language</u> <u>proficiency</u>.

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 (Certificat 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

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.

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 <u>scholarship website</u> 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.

Additional documents for this programme:

In the Placement Letter you are asked to explain in writing that you possess an equivalent level of knowledge, understanding, skills and (research) experience as applicants who are holding a Bachelor's degree in Astronomy from Leiden University.

You can find the courses and research components which are part of the Leiden BSc degree in Astronomy in the Prospectus [https://studiegids.universiteitleiden.nl/en/studies/7899/astronomy]. Please use this as a reference to verify that you meet the admission requirement mentioned above.

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 <u>here</u>.

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 <u>Studielink</u> 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 <u>DigiD</u>

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 <u>master</u> 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 <u>visa/residence permit deadline</u>.

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 <u>tuition fee</u> 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 <u>Prepare your stay</u> 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

Are you interested in the master's programme Astronomy and do you have minor deficiencies in your previous education which keep you from meeting the entry requirements? Then the Astronomy pre-master's programme might be an option for you.

The Astronomy pre-master's programme is designed especially for applicants holding a university or HBO degree (applied sciences) in a related field of science with proven experience in the field of astronomy, who lack specific knowledge or experience required for successful participation in the Astronomy master's programme. These deficiencies usually include astronomy, math and/or physics courses, which can be included in a tailored Astronomy pre-master's programme.

The pre-master's a programme can only be imposed by the Board of Admissions, and is therefore not a programme for which students can apply themselves. Upon successful completion of the Astronomy pre-master's programme within the deadline imposed by the Board of Admissions, students will be admitted to the Astronomy master's programme.

For more information on courses, application procedures and costs, see the e-Prospectus

Tuition fees

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 €19,600per 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 $\leq 2,314$ for the academic year 2023-2024 (statutory fee). The tuition fee for this programme is $\leq 2,530$ 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 <u>DUO nationality chart</u>.

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 <u>tuition fee flowchart for second master's programmes</u> 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 60 ECs, you will have to pay €42 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 <u>loan from the Dutch</u> government to cover your tuition fees.

>> 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 '<u>student website</u>' 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 <u>Prospectus.</u>

Sign up for the introduction week in <u>Leiden (OWL)</u> or <u>The Hague (HOP)</u>! 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.

Follow Christine around the city and see what it is like to live in Leiden

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Watch the video on the original website or Accept cookies

De Leidsche Flesch

<u>Leidsch Astronomisch Dispuut F. Kaiser</u> is the Astronomy study association. It is part of De Leidsche Flesch, the study association for students of the Physics, Astronomy, Mathematics and Computer Science programmes. Kaiser fosters the integration between Astronomy students and other members of the Leiden

Observatory community by organising social activities and events, including guided tours and public events at the Leiden historical observatory <u>Oude Sterrewacht</u>. Study association De Leidsche Flesch arranges the book sale for the Astronomy programme, through which members can easily order their books with a discount.

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!

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 Astronomy programme? Chat with a current student for answers to your questions!



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 <u>Master Talks: programme videos platform</u> 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!

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.

Accept cookies

Contact

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

Contact the programme

For more information and questions about entry requirements, admissions procedures, tuition fees and scholarships, please contact the Education Office Astronomy.

Student Affairs Officer Master Astronomy

Kim Nguyen, MSc

E-mail: master@strw.leidenuniv.nl

Phone: +31 (0)71 527 8122

Contact Astronomy alumni

Would you like to talk to someone who knows the Astronomy master's programme? Who knows how to get around in Leiden and can tell you more about entering the job market after graduation? Then contact one of our Astronomy Ambassadors and feel free to ask anything about their experiences studying at Leiden University.

Name	Institute
Isa Oliviera	Optimum Soluções, São Paulo, Brazil
Roderik Overzier	National Observatory in Rio de Janeiro, Brazil
Demerese Salter	Pontificia Catolica Universidad de Chile
Thijs Kouwenhoven	Xi'an Jiaotong-Liverpool University, China
Wouter Vlemmings	Chalmers University of Technology, Sweden
Frank van den Bosch	<u>a</u> Yale University, US

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 $\underline{\text{mail}}$ 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 <u>online contact form</u>.

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 Astronomy programme? Chat with a current student for answers to your questions!