

Astronomy

Master of Science

The Astronomy master's programme at Leiden Observatory covers observational astronomy using the world's most powerful ground- and space-based telescopes, theoretical astrophysical modeling, large scale simulations, development of astronomical instruments and astrochemical laboratory experiments that mimic conditions in space.

In this two-year master's programme in Astronomy you are involved in cutting edge research in modern astronomy. Main focus areas include galaxies and the structures in which they are embedded, exoplanets, and star and planet formation. With seven challenging specialisations to choose from, you will be prepared for a wide variety of careers within academia, industry and the public sector.

Why study Astronomy at Leiden University?

- Our tailor-made master's programme integrates challenging courses and cutting edge research with strong international partners and top facilities.
- You are part of our international Astronomy community and have your own office and computer.
- Leiden University offers a welcoming environment with highly approachable renowned staff, a buddy system and individual student support.
- Scholarships are available for excellent international students.



**Universiteit
Leiden**
The Netherlands



Facts and figures

Language	English
Duration	2 years
Degree	Master of Science
Start	September or February
Admission	Start September: 1 April non-EU/15 June EU Start February: 15 October non-EU/1 December EU
Tuition fee	€ 2,078 EU/18,300 non-EU

More information

For more information about the study programme, entry requirements, admission procedures, tuition fees and scholarships, please visit our website:

masters.universiteitleiden.nl/astronomy

Discover the world at Leiden University



MSc Astronomy: specialisations, programme and courses

Specialisations

All seven Astronomy master's specialisations have their own curricular focus with a wide variety of in-house Astronomy and non-Astronomy courses to tailor your own study path. You can choose from the following specialisations:

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

Courses

Core courses (6 EC each)

- Origin and Evolution of the Universe
- Interstellar Medium
- Large Scale Structure and Galaxy Formation
- Stellar Structure and Evolution

General courses (6 EC each)

- Computational Astrophysics
- Galaxies: Structure, Dynamics and Evolution
- Star and Planet Formation

Non-Astronomy courses

- Physics courses
- Mathematics courses
- Computer Science Courses

Programme research specialisations

- Astronomy courses (30-36 EC)
- Astronomy and non-Astronomy electives (24-30 EC)
- First Research Project in Astronomy (30 EC)
- Master's Research Project in Astronomy (30 EC)

Programme BS, SCS and Education

- Astronomy Core courses (≥ 12 EC)
- Other Astronomy Courses (6-32 EC)
- Non-Astronomy Courses (6-12 EC)
- Master's Research Project in Astronomy (30 EC)
- Specialisation specific programme (40-60 EC)

Instrumentation courses (3 or 6 EC each)

- Astronomical Telescopes and Instruments
- Astronomy from Space
- Detection of Light
- High Contrast Imaging
- Project Management for Scientists
- Radio Astronomy

Specialist courses (3 or 6 EC each)

- Observational Cosmology
- Astrochemistry
- Databases and Data Mining in Astronomy
- High-energy Astrophysics
- Gravitational Lensing
- Compact Objects and Accretion
- Numerical Recipes in Astrophysics
- Astronomical Spectroscopy
- Modern Astrostatistics