

MASTER OF ASTROPHYSICS

with **Exoplanet Science Specialization certificate**

Module Structure Overview

P1	Lecture: Introduction to Advanced Astrophysics	9	ECTS
P2	Astrophysical Basic Lab	9	ECTS
P3	Lecture: Basic Research Methods and Tools	6	ECTS
WP 1-14	Physics Lecture Choose one from the list “Physics lectures” in the LSF	6	ECTS
<i>Mandatory components of Exoplanet Science Specialization Certificate</i>			
WP 15	Geoscience of Exoplanets Seminar	3	ECTS
WP 18/20	Lecture: Exoplanetary Atmospheres 3 Lectures in Geo- and Planetary sciences* :	9	ECTS
WP 22	Physics and Chemistry of Planets and Exoplanets	6	ECTS
WP 27	Geochemistry	6	ECTS
WP 28	Heterogenous Systems (<i>Thermodynamics</i>)	6	ECTS
<i>Elective Lecture[†]</i> from the following topics. Choose one in the LSF		6	ECTS
i. The Origin of Stars and Planets (WP 29/31)			
ii. An Introduction to Planetary Science (WP 29/30/35)			
iii. Protoplanetary Disks and Planet Formation (WP 30/35)			
iv. ‘AI in Physics’ Specialization curriculum (WP 35)			
v. ‘Logic and Philosophy of Science’ curriculum (WP 35)			
WP 36/37	Research Project Module: Scientific Working Methods	12	ECTS
WP 38/39	Research Project Module: Scientific Project Planning	12	ECTS
WP 40/41	Final Module: Master’s Thesis[§]	30	ECTS

* 3 lectures of 6 ECTS each offered by the Faculty of Geosciences **only every Winter Semester**. **Note:** The registration deadlines for these courses may differ. Also note that most courses are offered only in specific semesters, not every semester.

[†] Elective lecture of 6 ECTS from the given list can be chosen. These are offered by the Faculty of Astrophysics / Physics / Philosophy.

[§] focused on Exoplanet Science. The modules WP 36–41 are part of the Master’s Thesis project

Notes:

- Students have to select **all** the mandatory modules of the Master Astrophysics program (**P1, P2, P3**) **and one** Physics Lecture of their choice (**WP 1-14**).
- For the specialization certificate, student have to select **all** the **mandatory components of the specialization** (**WP 15,18/20,22,27 and 28**), and the **Master’s Thesis project** (**WP 36-41**) **focused on Exoplanet Science**
- For **Elective Lectures[†]** within the specialization, a changing variety of different topics are offered. You must select **one** of the **listed Elective Lectures i. - v. (WP29/30/31/35, 6 ECTS)** matching your interest whenever they are offered. *For more specialized training we recommend choosing courses from the Astrophysics curriculum (i, ii or iii). For more interdisciplinary training, you can alternately choose a lecture from the ‘AI in Physics’ Specialization curriculum (iv) or even from the ‘Logic and Philosophy of Science’ Masters curriculum (v)*

- Each module can be used only once within the degree program.
- Most courses are offered only in specific semesters, not every semester. **Please check back on the [Exoplanet Science Specialization page](#) for information and important registration deadlines.**

Please also note:

- *Requirements for the Exoplanet Science Specialization Certificate are **in addition and complementary** to the mandatory requirements of the Master of Astrophysics curriculum. If students fulfill both sets of requirements by the end of their studies, they will get the MSc Astrophysics degree with a specialization certificate in Exoplanet Science. If not, they can obtain the regular MSc Astrophysics degree certificate.*
- The above explanations are only a very small subset of rules applicable to obtaining the Master in Astrophysics. **Please read the detailed list of notes, explanations, rules and regulations applicable to the MSc Astrophysics Program** (and the Exoplanet Science Specialization certificate) **here: [MSc Astrophysics Study Regulations Version 2023 | Examination and Study Regulations of LMU for the Master's degree program in Astrophysics \(2023\) \(en\)](#)**
- For complete, detailed, and legally binding information, always consult the official Examination and Study Regulations and the associated documents at the website:
<https://www.physik.lmu.de/en/studies/study-programs/msc-astrophysics/index.html>

It is an **obligation** for all students **to take note of the rules** defined in these links & documents!