

Master degree programme Astronomy

Appendices to the Teaching and Examination Regulations

Appendix A Aim of the degree programme (art. 1.3)

The degree programme aims to train the students in such a way that they acquire the insight, skills and knowledge that allows the recipient of the degree to establish a professional career in the field of Astronomy.

Appendix B Specializations of degree programme (art. 2.2)

The degree programme has the following specializations:

- Theoretical and Observational Astronomy
- Instrumentation and Informatics
- Science, Business and Policy

Appendix C Content of degree programme (art. 2.3)

Specialization Theoretical and Observational Astronomy

module	ECTS	assessment	practical
Basic Astrophysics Course (not included in the bachelor programme)	5	see appendix D	see app. D
Advanced astrophysics courses	25	see appendix D	see app. D
Optional courses in science	20	see appendix D	see app. D
Optional courses	10	see appendix D	see app. D
Master research / thesis	60	assessment of performance, report, presentation	
Astronomy colloquium	-	attendance	

Specialization Instrumentation and Informatics

module	ECTS	assessment	practical
Advanced astrophysics courses	10	see appendix D	see app. D
Optional courses in Instrumentation and Informatics	10	see appendix D	see app. D
Principles of Measurement Systems	5	written examination	
Control Engineering	5	written examination	
Applied Signal Processing	5	written examination	
Basic Detection Techniques	5	written examination	
Astronomical Space Missions	5	written examination	
Numerical Mathematics 2	5	written examination	
Project Information Technology	10	assessment of performance, report, presentation	
Internship in Industry	20	assessment of performance, report, presentation	
Master research / thesis	40	assessment of performance, report, presentation	
Astronomy colloquium	-	attendance	

Specialization Science, Business and Policy

module	ECTS	assessment	practical
Advanced astrophysics courses	30	see appendix D	see app. D
Course Science, Business and Policy	20	assignment, exam	
Internship Science, Business and Policy	40	assessment of performance, reports	

Master research / thesis	30	assessment of performance, report, presentation
Astronomy colloquium	-	attendance

Appendix D Optional modules (art. 2.4)

Basic Astrophysics Courses

module	ECTS	assessment	practical
Formation and Evolution of Galaxies	5	written examination	
Interstellar Medium	5	written examination	
Cosmology	5	written examination	

Advanced Astrophysics Courses

module	ECTS	assessment	practical
Dynamics of Galaxies	5	written examination, assignments	
Stellar Structure and Evolution	5	written examination	
Large Scale Structure of the Universe	5	written and oral reports, assignments	
Active Galaxies	5	written examination	
High Energy Astrophysics	5	as in due time determined by the lecturer	
Basic Detection Techniques	5	written examination	
Astronomical Space Missions	5	written examination, assignments	
Star and Planet Formation	5	written examination	
Virtual Observations	5	written examination, assignments	
Inter Academy Course	5	written examination	
Gravitational Lensing	3	oral examination, paper	
Milky way	3	presentation, paper	
Dark Matter in Galaxies	3	written examination, paper	
Epoch of Reionisation Physics	3	written examination, paper	
HI in the Universe	3	written examination, paper	
High Redshift Galaxies	3	written examination, paper	
Dwarf Galaxies	3	written examination, paper	

Optional Courses in Science

module	ECTS	assessment	practical
Optional courses at master level in Mathematics, Physics, Astronomy Chemistry or Computer Science	5	as indicated in appendix C or D of the corresponding MSc Programme	

Optional Courses

module	ECTS	assessment	practical
Optional courses in any field taught at the university, on individual approval of the Board of Examiners	5	as indicated in appendix C or D of the corresponding programme	

Optional Courses in Instrumentation and Informatics

module	ECTS	assessment	practical
Accelerator Physics and Ion Optics	5	oral examination	
Device Physics	5	written examination	
Experimental Methods of Trace Gas Research	5	written examination, report	
Imaging Techniques in Radiology	5	as indicated in appendix C or D of the MSc programme in Biomedical Engineering	as indicated in appendix C or D of the MSc programme in Biomedical Engineering
Interferometry	5	written examination	

