Adjust view of Your programme syllabus

Svenska Print screen

Enrollment semester	A24A23A22A21A20A19A18A17A16A15A14 A13A12A11A10A09A08A07	
Adjust	CompleteCompulsory coursesStudy schedule	(all)Atmospheric and Space Science, research oriented (RYSP)Space Technology and Specialisation Instrumentation (RYIN)
Version	2016/20172015/2016	**Important! Up-to-date information about compulsory courses and study schedule are always shown in the latest version (study year) of the syllabus.**

Syllabus Master Programme in Space Science and Technology for study year 2015/2016

Rymdvetenskap och rymdteknik, master

Syllabus updated on 2015-03-31 by Enhetschefen Utbildnings- och forskningsenheten.

This is an adjusted view
Enrolled A15
View type Compulsory courses

Credits

The programme consists of 120 credits.

Degree

Degree of Master of Science (120 credits) - Major; Space Technology

Specialisation

	Name	For admitted until
RYSP	Atmospheric and Space Science, research oriented *Rymd och atmosfärsvetenskap, forskningsinriktad*	
RYIN	Space Technology and Instrumentation *Rymdteknik och instrumentering*	

Programme content and structure

In order to be eligible for the diploma in Master of Science in Space Technology with specialisations in Atmospheric and Space Sciences, Space Technology and Instrumentation the student has to obtain 120 ECTS, including courses on the advanced level for at least 90 ECTS and a Master thesis for 30 ECTS. The program is based on the Erasmus Mundus cooperation between six European and two Third-Country partner universities and combines courses in space science and technology. The program is coordinated by Luleå University of Technology.

Erasmus Mundus is an EU program that supports cooperation and exchange between universities on Master and postgraduate levels and provides European education of the highest quality.

European partner univeristies:
Luleå University of Technology (LTU) Sverige
Julius-Maximilians Universität Würzburg (JMUW) Tyskland
Cranfield University (CU) Storbritannien
Aalto University School of Science and Technology (AALTO) Finland
Czech Technical University Prague (CTU) Tjeckien
Université Paul Sabatier Toulouse (UPS) Frankrike

Third-country partner universities:
The University of Tokyo, Japan
Utah State Univerisity, USA

The first compulsory semester takes place at Julius-Maximilians University, Würzburg, Germany. The second compulsory semester takes place at Luleå University of Technology, Sweden. During the second semester students choose a European partner university for the second study year on the basis of their specialization. For students who take the second year at Luleå University of Technology a possibility to combine courses from two specialisations, i.e. in Space and Atmospheric Science and Space Technology and Instrumentation, is offered. The program concludes with a Master thesis in the chosen specialization at one of the partner universities.

For admission to the degree project course entry requirements specified in the Course Syllabus must be completed. Information regarding the application- and admission process is given and ensured by the responsible department.

Specialisations offered:
• Space Technology and Instrumentation (LTU)
• Atmospheric and Space Science (LTU)

• Automation, Control and Communication of Space Robotics (JMUW)
• Dynamics and Control of Systems and Structures (CU)
• Space Robotics and Automation (Aalto)
• Space Automation and Control (CTU)
• Space Technique and Instrumentation (UPS)
• Astrophysics, Space Science and Planetology (UPS)

All students within the educational program will be admitted to Master thesis course at LTU. All students that meet the requirements for graduation will receive Master of Science with a Major in Space Technology. Specializations given at LTU are included in the diploma.

Courses and diploma requirements for specialisations at the partner universities can be found at the respective universities or the programme website http://www.spacemaster.eu/.

Swedish for beginners is offered for overseas students. The course is not included in the degree, and is read in addition to the obligatory courses.

Entry requirements

Successful completion of a basic engineering program or a Bachelor´s degree with a minimum of 180 ECTS in the areas of physics, space physics, astronomy, engineering, electronics, mechatronics, space technology, computer science or equivalent. A minimum of 22.5 ECTS in mathematics at the university level is required. Applicants with earlier studies in Sweden must hold a "Kandidatexamen" in a relevant field or if the applicant is enrolled in European Diploma engineering programmes, or the equivalent, he/she must have completed at least three years of his/her studies.

Documented skills in English language.

More information about English language requirements

Selection

The selection procedure is based on academic qualifications, quality and quantity aspects

Selection group
Academic: 100%

Compulsory courses

Compulsory courses 90 credits

Course code	Name	Cr	Level		
E7003R	Electronics in Space	7.5	S		
F7003R	Optics- and Radar-based Observations	7.5	S		
P7004R	Master Degree Project	30	S		
R7004R	Spacecraft Environment Interactions	7.5	S		
R7017R	Space Physics	7.5	S		
	Spacecraft System Design (First cycle)	8			
	Space Dynamics.(Second cycle)	5			
	Introduction to Space Physics (Second cycle)	8			
	CanSat (Second cycle)	9			

AND

Course offered outside the obligatory courses - not compusory - For non Scandinavian students 0 credits

Course code	Name	Cr	Level		
S0046P	Swedish for International Students 1	3	F	Selectable	

Specialisation: Atmospheric and Space Science, research oriented

Compulsory course 7.5 credits

Course code	Name	Cr	Level		
R7013R	Space Instruments	7.5	S		

AND

Selective courses 22.5 credits, within selective courses choose 22.5 credits

Course code	Name	Cr	Level		
F7001R	Space Plasma Physics	7.5	S	Selectable	
F7004R	Atmospheric Physics	7.5	S	Selectable	
F7007R	Cosmology	7.5	S	Selectable	
F7008R	The Solar System	7.5	S	Selectable	
P7006R	Space Engineering Project 2	7.5	S	Selectable	
R7011R	Image Processing with Space Applications	7.5	S	Selectable	
R7012R	Remote Sensing	7.5	S	Selectable	
R7018R	Spacecraft on board datahandling	7.5	S	Selectable	
R7020R	Spacecraft Design	7.5	S	Selectable	

Specialisation: Space Technology and Instrumentation

Compulsory courses 15 credits

Course code	Name	Cr	Level		
R7013R	Space Instruments	7.5	S		
R7020R	Spacecraft Design	7.5	S		

AND

Selective courses 15 credits, within selective courses choose 15 credits

Course code	Name	Cr	Level		
F7008R	The Solar System	7.5	S	Selectable	
P7001R	Space Engineering Project II	15	S	Selectable	
P7006R	Space Engineering Project 2	7.5	S	Selectable	
P7011R	Spacecraft Instrument Project	15	S	Selectable	
P7012R	Spacecraft Design Project	7.5	S	Selectable	
R7015R	Space flight orbit dynamics	7.5	S	Selectable	
R7016R	Space flight attitude dynamics	7.5	S	Selectable	
R7018R	Spacecraft on board datahandling	7.5	S	Selectable	