

Block view of the study programme

Or Th Pr Au Cr

Block 1

Common core courses

Choisir, en accord avec le Jury, des cours pour un total de 60 crédits dans les listes proposées ci-dessous, dont au moins un des deux premiers cours de 5 des 6 listes proposées :

Space sciences : interdisciplinary courses

SPAT0017-1	<i>Seminars on topical issues</i> (english language) - Bertrand BONFOND, Gaël BULDGEN, JeanRené CUDELL, Damien HUTSEMEKERS, Guillaume MAHLER, Charles TROUPIN	TA	-	30	-	3
SPAT0035-1	<i>Space exploration</i> (english language) - Grégor RAUW	Q1	30	10	-	4
SPAT0001-1	<i>Plasma physics</i> (english language) - Benoît HUBERT	Q2	25	5	-	4
SPAT0018-1	<i>Ideas evolution in astronomy</i> - Yaël NAZÉ	Q1	14	6	-	2
SPAT0036-1	<i>Celestial mechanics and space trajectories</i> (english language) - Grégor RAUW	Q1	25	10	-	4
SPAT0040-1	<i>Fluid mechanics</i> (english language) - Pierre DAUBY	Q1	20	10	-	4

Cosmology, astroparticles and gravitational waves

SPAT0021-1	<i>Introduction to astroparticles</i> (english language) - JeanRené CUDELL	Q2	30	-	-	3
SPAT0012-1	<i>General relativity</i> (english language) - Guillaume MAHLER	Q1	30	10	-	4
SPAT0010-1	<i>Cosmology</i> (english language) - Guillaume MAHLER	Q2	15	5	-	2
Corequisite : SPAT0012-1 - General relativity						
SPAT0160-1	<i>Particles and astroparticles</i> (english language) - JeanRené CUDELL	Q2	20	10	-	4
Corequisite : SPAT0162-1 - Quantum field theory						
SPAT0260-1	<i>Particles and gravitation</i> (english language) - JeanRené CUDELL	Q2	10	5	-	2
Corequisite : SPAT0162-1 - Quantum field theory						
SPAT0162-1	<i>Quantum field theory</i> (english language) - JeanRené CUDELL	Q1	20	10	-	4
Corequisite : SPAT0012-1 - General relativity						
PHYS2012-1	<i>Relativistic quantum mechanics and relativistic statistics</i> - Peter SCHLAGHECK	Q1	20	5	-	3
SPAT0084-1	<i>Theory of gravitational waves</i> (english language) - Maxime FAYS	Q1	20	10	-	4
Corequisite : SPAT0012-1 - General relativity						

Astrophysics

SPAT0033-1	<i>Astrophysics</i> (english language) - Michaël DE BECKER	Q1	35	10	-	5
SPAT0044-1	<i>Stellar structure and evolution I</i> (english language) - MarcAntoine DUPRET	Q1	35	-	-	3
SPAT0005-1	<i>Stellar stability and asteroseismology</i> (english language) - MarcAntoine DUPRET	Q2	30	10	-	4
Corequisite : SPAT0044-1 - Stellar structure and evolution I						
SPAT0006-1	<i>Stellar atmospheres</i> (english language) - Grégor RAUW	Q2	20	10	-	3
SPAT0007-2	<i>Variable stars</i> (english language) - Grégor RAUW	Q1	20	10	-	3
SPAT0008-1	<i>Interstellar medium</i> (english language) - Michaël DE BECKER, Valérie VAN GROOTEL	Q1	30	10	-	4

SPAT0009-1	<i>High-energy astrophysics</i> (english language) - Grégor RAUW	Q1	25	5	-	3
SPAT0011-1	<i>Extragalactic astrophysics</i> (english language) - Guillaume MAHLER, Dominique SLUSE Corequisite : SPAT0033-1 - Astrophysics	Q2	20	10	-	3
SPAT0020-2	<i>Astrochemistry</i> (english language) - Michaël DE BECKER	Q1	30	10	-	4
SPAT0045-1	<i>Stellar structure and evolution II</i> (english language) - MarcAntoine DUPRET Corequisite : SPAT0044-1 - Stellar structure and evolution I	Q2	20	20	-	3
SPAT0069-1	<i>Radio astrophysics</i> (english language) - Michaël DE BECKER	Q2	25	10	-	4
Planetary science and planetary systems						
SPAT0055-1	<i>Atmosphere of the Earth</i> (english language) - Denis GRODENT	Q1	45	-	-	4
SPAT0063-1	<i>Introduction to exoplanetology</i> (english language) - Olivier ABSIL, Michaël GILLON Corequisite : SPAT0033-1 - Astrophysics	Q2	20	10	-	4
SPAT0023-1	<i>Terrestrial magnetosphere and polar lights</i> (english language) - Benoît HUBERT	Q2	30	10	-	4
SPAT0028-2	<i>Planetary magnetospheres and aurorae</i> (english language) - Bertrand BONFOND, Denis GRODENT	Q2	20	10	-	3
SPAT0043-1	<i>The small bodies of the solar system</i> (english language) - Emmanuel JEHIN	Q2	15	5	-	3
SPAT0048-5	<i>Earth's atmospheric and space environment</i> (english language) - <i>Space environment</i> - Denis GRODENT - <i>Applied space environment</i> - Denis GRODENT	Q1	15	-	-	3
SPAT0056-1	<i>Planetary and exoplanetary atmospheres</i> (english language) - Denis GRODENT Corequisite : SPAT0055-1 - Atmosphere of the Earth	Q2	30	15	-	5
GEOL0263-1	<i>Astrobiology</i> (english language) - Kristin BARTIK, Pierre CARDOL, Vinciane DEBAILLE, Michaël GILLON, Emmanuelle JAVAUX, Yannick LARA, Yaël NAZÉ, AnnCarine VANDAELE, Annick WILMOTTE	Q2	45	-	-	5
GEOG0670-1	<i>Active Tectonics and Seismology</i> (english language) - Clara BRERETON, HansBalder HAVENITH, Aurelia HUBERT - [2d FW]	Q1	20	10	[+]	5
Climate, environment and oceanography						
SPAT0027-3	<i>Climate change and impacts</i> (english language) - Louis FRANÇOIS, Guy MUNHOVEN	TA	30	30	-	5
OCEA0071-1	<i>Geophysical fluid dynamics - part 1</i> (english language) - JeanMarie BECKERS	Q2	30	15	-	6
SPAT0024-2	<i>Meteorology</i> (english language) - <i>Part 1</i> - Louis FRANÇOIS - <i>Part 2</i> - Louis FRANÇOIS	Q1	20	10	-	6
SPAT0025-1	<i>Climate and environmental modelling</i> (english language) - Louis FRANÇOIS, Guy MUNHOVEN	Q2	30	15	-	4
SPAT0026-1	<i>Paleoenvironment and evolution of the Earth system</i> (english language) - Louis FRANÇOIS	Q2	30	10	-	4
SPAT0032-2	<i>Remote sensing</i> (english language) - François JONARD	Q1	20	20	-	5
GEOG0037-1	<i>Global Navigation Satellite Systems</i> - René WARNANT	Q1	40	15	-	5
GEOG0038-1	<i>GNSS data processing</i> - René WARNANT	Q1	25	30	-	5

Corequisite :

GEOG0037-1 - Global Navigation Satellite Systems

OCEA0045-1 *Statistical methods of analysis of oceanographic data* (english language) - N... Q1 20 10 - 3

OCEA0087-1 *Satellite oceanography* (english language) - Aida ALVERA AZCARATE Q1 15 15 - 3

OCEA0072-1 *Geophysical fluid dynamics - part 2* (english language) - JeanMarie BECKERS Q1 30 15 - 5

Corequisite :

OCEA0071-1 - Geophysical fluid dynamics - part 1

OCEA0081-1 *Numerical Methods in Geophysics - Part 2* (english language) - JeanMarie BECKERS Q1 15 30 - 5

Instrumentation and methods for space sciences

SPAT0068-1 *Astrophysical observations* (english language) - Emmanuel JEHIN - [5d FW] Q2 15 15 [+] 6

SPAT0002-1 *Statistical methods and data analysis* (english language) - Maxime FAYS, Guy MUNHOVEN, Dominique SLUSE Q1 20 30 - 5

PHYS0048-3 *Coherent and incoherent optics, Instrumental optics I* (english language) - Serge HABRAKEN Q1 20 15 - 4

PHYS0125-3 *Instrumental optics II* (english language) - Serge HABRAKEN Q2 25 15 - 4

Corequisite :

PHYS0048-3 - Coherent and incoherent optics

SPAT0067-1 *Atmospheric and adaptive optics* (english language) - Olivier ABSIL Q1 15 5 - 2

SPAT0085-1 *Analysis mehtods in gravitational-wave astronomy* (english language) - Maxime FAYS Q2 20 10 - 4

SPAT0086-1 *Advanced data analysis in python and introduction to machine learning* (english language) - Valentin CHRISTIAENS, Maxime FAYS, Guy MUNHOVEN, Dominique SLUSE Q2 15 25 - 4

Block 2

Core curriculum compulsory course

SMEM0029-1 *Final thesis* - COLLÉGIALITÉ, Michaël DE BECKER TA - - - 27

Common core courses

Choisir, en accord avec le Jury, un cours non déjà choisi de 3 crédits dans les listes proposées en Bloc 1

[...] In agreement with the jury, chose a course that hasn't already been chosen worth 3 credits from the lists offered in Block 1

Focus optional courses

Choose courses totalling 30 ECTS out of the following :

[...] Choose courses not already chosen for a total of 30 credits from the ULiège Faculty of Science or Applied Science course programme (including the ULiège Master of Civil Engineering in Aerospace programme), from the list below and/or from another institution's course programme. These choices must be backed up by a coherent choice of curriculum, approved by the Jury

SSTG0043-1 *Placement* - Marc GEORGES, Yaël NAZÉ, Grégor RAUW TA - 140 - 10

Bloc d'aménagement du programme de l'année

Bridging courses (max 15-60 credits) Master in space sciences (120 credits)

Optional courses

The update course, worth a maximum of 60 credits, will be determined based on students' prior training.

[...] Between 15 and 60 ECTS of courses