

Vue bloc du programme des cours

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Bloc 1 du programme de l'année

Compulsory courses

MECA0462-2	<i>Materials selection</i> (anglais) - Jacqueline LECOMTEBECKERS, Davide RUFFONI - [30h Proj., 1j T. t.]	Q1	30	30	[+]	5
MECA0474-1	<i>Mechanical Computer-Aided-Design</i> (anglais) - Eric BÉCHET - [30h Proj.]	Q1	30	30	[+]	5
MECA0029-1	<i>Theory of vibration</i> (anglais) - JeanClaude GOLINVAL - [30h Proj.]	Q1	30	30	[+]	5
AERO0025-1	<i>Satellite engineering</i> (anglais) - Gaëtan KERSCHEN - [20h Proj.]	Q1	60	-	[+]	5
AERO0001-1	<i>Aerodynamics</i> (anglais) - Thomas ANDRIANNE, Vincent TERRAPON - [2h Labo., 25h Proj.]	Q2	30	28	[+]	5
AERO0014-1	<i>Aerospace propulsion</i> (anglais) - Olivier LÉONARD Corequis : AERO0001-1 - Aerodynamics	Q2	30	30	-	5
AERO0003-1	<i>Flight Dynamics and Control</i> (anglais) - Grigorios DIMITRIADIS - Suppl : Patrick HENDRICK Corequis : AERO0001-1 - Aerodynamics APRI0004-1 - Aerospace design project	Q2	30	30	-	5
MECA0031-2	<i>Kinematics and dynamics of mechanisms</i> (anglais) - Olivier BRULS - [40h Proj.]	Q2	30	20	[+]	5
APRI0004-1	<i>Aerospace design project</i> (anglais) - Ludovic NOELS - Suppl : Thomas ANDRIANNE - [10h Labo., 260h Proj., 5j T. t.] Corequis : MECA0474-1 - Mechanical Computer-Aided-Design AERO0014-1 - Aerospace propulsion AERO0001-1 - Aerodynamics AERO0003-1 - Flight Dynamics and Control	TA	30	-	[+]	10

Remarque : with the agreement of the President of the Jury, based on its technical content, the integrated project can be replaced by an interdisciplinary project (e.g., Ingénieur de projet, Eurobot, Eco-Shell Marathon) completed between the beginning of the third year of the bachelor and the end of the second year of the Master."

Optional courses

Choose an option between "Aeronautics" and "Space engineering"

Option in Aeronautics

MECA0023-1	<i>Advanced solid mechanics</i> (anglais) - JeanPhilippe PONTHOT - [20h Proj.]	Q1	30	30	[+]	5
MECA0028-1	<i>Aeronautical structures</i> (anglais) - Ludovic NOELS - [70h Proj.] Corequis : APRI0004-1 - Aerospace design project	Q2	30	20	[+]	5

Option in Space engineering

SPAT0048-4	<i>Atmosphere of the Earth and Space Environment</i> (anglais) - JeanClaude GÉRARD, Denis GRODENT	Q2	45	15	-	5
AERO0018-3	<i>Space experiment development</i> (anglais) - Pierre ROCHUS	Q1	30	30	-	5

Remarque : students who, in their bachelor's degree, took one or more of the compulsory course(s) must replace them by other(s) course(s) of the Faculty ; this choice must be approved by the President of de cycle's jury.

Bloc 2 du programme de l'année

Compulsory courses

ATFE0005-1	<i>Master's thesis</i> - COLLÉGIALITÉ	TA	-	-	-	25
GEST3162-1	<i>Principles of management</i> (anglais) - Michael GHILISSEN, François PICHault, Thierry PIRONET, Didier VAN CAILLIE	Q1	25	25	-	5

Optional courses

Single focus

Research focus

Compulsory courses

AERO0030-1	<i>Computational fluid dynamics</i> (anglais) - Vincent TERRAPON - [10h Labo.]	Q2	30	20	[+]	5
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Optional courses

Choose 25 credits of course among :

- [...] The student must choose either an observation or an integration intership. If the observation intership is selected, 2 remaining credits should be selected within the research focus module
- [...] A maximum of 5 credits can be selected among the ISLV language courses organized in other Faculties or in the list below

Aeronautics

AERO0032-1	<i>Aeroelasticity and experimental aerodynamics</i> (anglais) - Thomas ANDRIANNE Prérequis : AERO0001-1 - Aerodynamics MECA0029-1 - Theory of vibration	Q1	30	30	-	5
AERO0015-1	<i>Mechanical design of turbomachinery</i> (anglais) - JeanClaude GOLINVAL - [30h Proj.] Prérequis : MECA0029-1 - Theory of vibration	Q1	30	30	[+]	5
MECA0502-1	<i>Mechanics of composites</i> (anglais) - Michaël BRUYNEEL	Q1	30	30	-	5
MECA0032-1	<i>Flow in turbomachineries</i> (anglais) - Olivier LÉONARD - [60h Proj.] Prérequis : AERO0001-1 - Aerodynamics Corequis : AERO0030-1 - Computational fluid dynamics	TA	30	30	[+]	5
AERO0004-1	<i>Turbulent Flows</i> (anglais) - Vincent TERRAPON - [40h Proj.] Corequis : AERO0030-1 - Computational fluid dynamics	Q1	30	30	[+]	5
AERO0033-1	<i>Aerothermodynamics of high-speed flows</i> (anglais) - Thierry MAGIN - [1j T. t.] Prérequis : AERO0001-1 - Aerodynamics	Q2	30	30	[+]	5

Space engineering

ASTR0004-2	<i>Astrophysics and space techniques</i> (anglais) - Jean SURDEJ - [5h Labo., 5h Proj., 5j T. t.]	TA	30	15	[+]	5
AERO0024-1	<i>Astrodynamic</i> (anglais) - Gaëtan KERSCHEN - [20h Proj.]	Q1	30	30	[+]	5
SPAT0032-2	<i>Remote sensing</i> (anglais) - Christian BARBIER	Q1	30	30	-	5
AERO0026-1	<i>Launch vehicles design and propulsion</i> (anglais) - JeanLuc BOZET, Philippe NGENDAKUMANA	Q2	30	-	-	5
ELEN0008-1	<i>Principes des télécommunications analogiques et numériques</i> - Marc VAN DROOGENBROECK	Q2	30	30	-	5
AERO0033-1	<i>Aerothermodynamics of high-speed flows</i> (anglais) - Thierry MAGIN	Q2	30	30	[+]	5

- [1j T. t.]

Prérequis :

AERO0001-1 - Aerodynamics

PHYS0048-1	<i>Coherent and incoherent optics</i> (anglais) - Serge HABRAKEN	Q1	30	30	-	5
MECA0127-1	<i>Active structures</i> (anglais) - André PREUMONT	Q1	30	30	-	5

[...] With the agreement of the President of the Jury, a maximum of 5 credits can be selected among the courses of the Master in Space Sciences

Computational mechanics

MECA0464-1	<i>Large deformation of solids</i> (anglais) - JeanPhilippe PONTHOT - [60h Proj.]	Q1	30	30	[+]	5
MECA0058-1	<i>Fracture mechanics, damage and fatigue</i> (anglais) - Ludovic NOELS - [75h Proj.]	Q1	30	10	[+]	5
MECA0062-1	<i>Vibration testing and experimental modal analysis</i> (anglais) - JeanClaude GOLINVAL - [30h Proj.]	Q1	30	30	[+]	5
	Prérequis : MECA0029-1 - Theory of vibration					
INFO0939-1	<i>High performance scientific computing</i> (anglais) - Christophe GEUZAIN - [20h Proj.]	Q1	30	15	[+]	5
MECA0027-1	<i>Structural and multidisciplinary optimization</i> - Pierre DUYSINX, Patricia TOSSINGS - [18h Proj.]	Q1	30	12	[+]	5
INFO2046-2	<i>Computational geometry</i> (anglais) - Eric BÉCHET - [95h Proj.]	Q1	25	-	[+]	5
MECA0470-1	<i>New methods in computational mechanics</i> (anglais) - Maarten ARNST, Eric BÉCHET, Ludovic NOELS - [40h Proj.]	Q2	20	-	[+]	5
MECA0010-1	<i>Stochastic modelling</i> (anglais) - Maarten ARNST - [28h Proj.]	Q2	16	16	[+]	5

[...] One course of maximum 5 credits to choose among other courses of the Faculty : this choice must be approved by the cycle's jury President

Remarque : a student who, in his (her) bachelor degree, has already followed one or several optional course(s) of this list has to replace it.

Compulsory Internship

ASTG0116-1	<i>Observation internship</i> - Pierre DEWALLEF	TA	-	-	-	3
	Corequis : GEST3162-1 - Principles of management					
ASTG0117-1	<i>Integration internship</i> - Pierre DEWALLEF	TA	-	-	-	5
	Corequis : ATFE0005-1 - Master's thesis GEST3162-1 - Principles of management					

Language

LANG1957-1	<i>Néerlandais pour l'ingénieur, partim 1</i> (néerlandais) - Claudine COLIN	Q1	36	-	-	3
LANG2978-1	<i>Néerlandais pour l'ingénieur, partim 2</i> - Claudine COLIN	Q2	24	-	-	2
	Corequis : LANG1957-1 - Néerlandais pour l'ingénieur, partim 1					
LANG1958-1	<i>Allemand pour l'ingénieur, partim 1</i> (allemand) - Françoise CARL	Q1	36	-	-	3
LANG2979-1	<i>Allemand pour l'ingénieur, partim 2</i> - Françoise CARL, ISLV	Q2	24	-	-	2
	Corequis : LANG1958-1 - Allemand pour l'ingénieur, partim 1					

Programme transitoire à destination des étudiants ayant réussi leur master 1 de "Master en ingénieur civil en aérospatiale, à finalité approfondie" en 2014-2015

ULg : Administration de l'Enseignement et des Étudiants - Affaires Académiques

Responsable de l'information : Monique Marcourt, Direction générale à l'Enseignement et à la Formation

Bloc 1 du programme de l'année

Optional courses

Single focus

Research focus

The student must choose 30 credits of courses

[...] The student must choose either an observation or an integration internship

ASTG0116-1 *Observation internship* - Pierre DEWALLEF TA - - - **3**

ASTG0117-1 *Integration internship* - Pierre DEWALLEF TA - - - **5**

[...] Maximum 25 crédits of courses within the Research focus module or courses of the 1st year master programme that have not been taken during 1st year to reach a total of 60 crédits.

Note : The course AERO0030-1 must be chosen if this course has not been taken during the 1st year.

[...] A maximum of 5 credits can be selected among the ISLV language courses organized in other Faculties or in the list below

LANG1957-1 *Néerlandais pour l'ingénieur, partim 1* (néerlandais) - Claudine COLIN Q1 36 - - **3**

LANG2978-1 *Néerlandais pour l'ingénieur, partim 2* - Claudine COLIN Q2 24 - - **2**

LANG1958-1 *Allemand pour l'ingénieur, partim 1* (allemand) - Françoise CARL Q1 36 - - **3**

LANG2979-1 *Allemand pour l'ingénieur, partim 2* - Françoise CARL, ISLV Q2 24 - - **2**

[...] With the agreement of the President of the Jury, the student can choose a maximum of 5 crédits among the other program of the Faculty.

Compulsory courses

ATFE0005-1 *Master's thesis* - COLLÉGIALITÉ TA - - - **25**

GEST3162-1 *Principles of management* (anglais) - Michael GHILISSEN, François PICHault, Thierry PIRONET, Didier VAN CAILLIE Q1 25 25 - **5**

Aeronautics

AERO0032-1 *Aeroelasticity and experimental aerodynamics* (anglais) - Thomas ANDRIANNE Q1 30 30 - **5**

AERO0015-1 *Mechanical design of turbomachinery* (anglais) - JeanClaude GOLINVAL - [30h Proj.] Q1 30 30 [+] **5**

MECA0502-1 *Mechanics of composites* (anglais) - Michaël BRUYNEEL Q1 30 30 - **5**

MECA0032-1 *Flow in turbomachineries* (anglais) - Olivier LÉONARD - [60h Proj.] TA 30 30 [+] **5**

AERO0004-1 *Turbulent Flows* (anglais) - Vincent TERRAPON - [40h Proj.] Q1 30 30 [+] **5**

AERO0033-1 *Aerothermodynamics of high-speed flows* (anglais) - Thierry MAGIN - [1j T. t.] Q2 30 30 [+] **5**

Space engineering

ASTR0004-2 *Astrophysics and space techniques* (anglais) - Jean SURDEJ - [5h Labo., 5h Proj., 5j T. t.] TA 30 15 [+] **5**

AERO0024-1 *Astrodynamic*s (anglais) - Gaëtan KERSCHEN - [20h Proj.] Q1 30 30 [+] **5**

SPAT0032-2 *Remote sensing* (anglais) - Christian BARBIER Q1 30 30 - **5**

AERO0026-1 *Launch vehicles design and propulsion* (anglais) - JeanLuc BOZET, Philippe NGENDAKUMANA Q2 30 - - **5**

ELEN0008-1 *Principes des télécommunications analogiques et numériques* - Marc VAN DROOGENBROECK Q2 30 30 - **5**

AERO0033-1	<i>Aerothermodynamics of high-speed flows</i> (anglais) - Thierry MAGIN - [1j T. t.]	Q2	30	30	[+]	5
PHYS0048-1	<i>Coherent and incoherent optics</i> (anglais) - Serge HABRAKEN	Q1	30	30	-	5
MECA0127-1	<i>Active structures</i> (anglais) - André PREUMONT	Q1	30	30	-	5

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Computational mechanics

MECA0464-1	<i>Large deformation of solids</i> (anglais) - JeanPhilippe PONTHOT - [60h Proj.]	Q1	30	30	[+]	5
MECA0058-1	<i>Fracture mechanics, damage and fatigue</i> (anglais) - Ludovic NOELS - [75h Proj.]	Q1	30	10	[+]	5
MECA0062-1	<i>Vibration testing and experimental modal analysis</i> (anglais) - JeanClaude GOLINVAL - [30h Proj.]	Q1	30	30	[+]	5
INFO0939-1	<i>High performance scientific computing</i> (anglais) - Christophe GEUZAINÉ - [20h Proj.]	Q1	30	15	[+]	5
MECA0027-1	<i>Structural and multidisciplinary optimization</i> - Pierre DUYSINX, Patricia TOSSINGS - [18h Proj.]	Q1	30	12	[+]	5
INFO2046-2	<i>Computational geometry</i> (anglais) - Eric BÉCHET - [95h Proj.]	Q1	25	-	[+]	5
MECA0470-1	<i>New methods in computational mechanics</i> (anglais) - Maarten ARNST, Eric BÉCHET, Ludovic NOELS - [40h Proj.]	Q2	20	-	[+]	5
MECA0010-1	<i>Stochastic modelling</i> (anglais) - Maarten ARNST - [28h Proj.]	Q2	16	16	[+]	5

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