

Vue cycle du programme des cours

		B1	Or	Th	Pr	Au	Cr
Compulsory courses (B1 : 50Cr, B2 : 30Cr)							
MECA0462-2	<i>Materials selection</i> (anglais) - Jacqueline LECOMTEBECKERS, Davide RUFFONI - [30h Proj., 1j T. t.]	B1	Q1	30	30	[+]	5
MECA0474-1	<i>Mechanical Computer-Aided-Design</i> (anglais) - Eric BÉCHET - [30h Proj.]	B1	Q1	30	30	[+]	5
MECA0029-1	<i>Theory of vibration</i> (anglais) - JeanClaude GOLINVAL - [30h Proj.]	B1	Q1	30	30	[+]	5
AERO0025-1	<i>Satellite engineering</i> (anglais) - Gaëtan KERSCHEN - [20h Proj.]	B1	Q1	60	-	[+]	5
AERO0001-1	<i>Aerodynamics</i> (anglais) - Thomas ANDRIANNE, Vincent TERRAPON - [2h Labo., 25h Proj.]	B1	Q2	30	28	[+]	5
AERO0014-1	<i>Aerospace propulsion</i> (anglais) - Olivier LÉONARD Corequis : AERO0001-1 - Aerodynamics	B1	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	B1	Q2	30	30	-	5
MECA0031-2	<i>Kinematics and dynamics of mechanisms</i> (anglais) - Olivier BRULS - [40h Proj.]	B1	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 <i>Remarque :</i> 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."	B1	TA	30	-	[+]	10
ATFE0005-1	<i>Master's thesis</i> - COLLÉGIALITÉ	B2	TA	-	-	-	25
GEST3162-1	<i>Principles of management</i> (anglais) - Michael GHILISSEN, François PICHULT, Thierry PIRONET, Didier VAN CAILLIE	B2	Q1	25	25	-	5

Optional courses (B1 : 10Cr, B2 : 30Cr)

Choose an option between "Aeronautics" and "Space engineering" (B1 : 10Cr)

Option in Aeronautics (B1 : 10Cr)

MECA0023-1	<i>Advanced solid mechanics</i> (anglais) - JeanPhilippe PONTHOT - [20h Proj.]	B1	Q1	30	30	[+]	5
MECA0028-1	<i>Aeronautical structures</i> (anglais) - Ludovic NOELS - [70h Proj.] Corequis : APRI0004-1 - Aerospace design project	B1	Q2	30	20	[+]	5

Option in Space engineering (B1 : 10Cr)

SPAT0048-4	<i>Atmosphere of the Earth and Space Environment</i> (anglais) - JeanClaude GÉRARD, Denis GRODENT	B1	Q2	45	15	-	5
AERO0018-3	<i>Space experiment development</i> (anglais) - Pierre ROCHUS	B1	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.

Single focus (B2 : 30Cr)

Research focus (B2 : 30Cr)

Compulsory courses

AERO0030-1 *Computational fluid dynamics* (anglais) - Vincent TERRAPON - [10h Labo.] B2 Q2 30 20 [+] 5

Optional courses

Choose 25 credits of course among : (B2 : 25Cr)

[...] 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

Compulsory Internship

ASTG0116-1 *Observation internship* - Pierre DEWALLEF B2 TA - - - 3

Corequis :

GEST3162-1 - Principles of management

ASTG0117-1 *Integration internship* - Pierre DEWALLEF B2 TA - - - 5

Corequis :

ATFE0005-1 - Master's thesis

GEST3162-1 - Principles of management

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

Language

LANG1957-1 *Néerlandais pour l'ingénieur, partim 1* (néerlandais) - Claudine COLIN B2 Q1 36 - - 3

LANG2978-1 *Néerlandais pour l'ingénieur, partim 2* - Claudine COLIN B2 Q2 24 - - 2

Corequis :

LANG1957-1 - Néerlandais pour l'ingénieur, partim 1

LANG1958-1 *Allemand pour l'ingénieur, partim 1* (allemand) - Françoise CARL B2 Q1 36 - - 3

LANG2979-1 *Allemand pour l'ingénieur, partim 2* - Françoise CARL, ISLV B2 Q2 24 - - 2

Corequis :

LANG1958-1 - Allemand pour l'ingénieur, partim 1

Aeronautics

AERO0032-1 *Aeroelasticity and experimental aerodynamics* (anglais) - Thomas ANDRIANNE B2 Q1 30 30 - 5

Prérequis :

AERO0001-1 - Aerodynamics

MECA0029-1 - Theory of vibration

AERO0015-1 *Mechanical design of turbomachinery* (anglais) - JeanClaude GOLINVAL - [30h Proj.] B2 Q1 30 30 [+] 5

Prérequis :

MECA0029-1 - Theory of vibration

MECA0502-1 *Mechanics of composites* (anglais) - Michaël BRUYNEEL B2 Q1 30 30 - 5

MECA0032-1 *Flow in turbomachineries* (anglais) - Olivier LÉONARD - [60h Proj.] B2 TA 30 30 [+] 5

Prérequis :

AERO0001-1 - Aerodynamics

Corequis :

AERO0030-1 - Computational fluid dynamics

AERO0004-1 *Turbulent Flows* (anglais) - Vincent TERRAPON - [40h Proj.] B2 Q1 30 30 [+] 5

Corequis :

AERO0030-1 - Computational fluid dynamics

AERO0033-1 *Aerothermodynamics of high-speed flows* (anglais) - Thierry MAGIN - [1j T. t.] B2 Q2 30 30 [+] 5

Prérequis :

AERO0001-1 - Aerodynamics

Space engineering

ASTR0004-2 *Astrophysics and space techniques* (anglais) - Jean SURDEJ - [5h Labo., 5h Proj., 5j T. t.] B2 TA 30 15 [+] 5

AERO0024-1 *Astrodynamic*s (anglais) - Gaëtan KERSCHEN - [20h Proj.] B2 Q1 30 30 [+] 5

SPAT0032-2 *Remote sensing* (anglais) - Christian BARBIER B2 Q1 30 30 - 5

AERO0026-1 *Launch vehicles design and propulsion* (anglais) - JeanLuc BOZET, Philippe NGENDAKUMANA B2 Q2 30 - - 5

ELEN0008-1 *Principes des télécommunications analogiques et numériques* - Marc VAN DROOGENBROECK B2 Q2 30 30 - 5

AERO0033-1 *Aerothermodynamics of high-speed flows* (anglais) - Thierry MAGIN - [1j T. t.] B2 Q2 30 30 [+] 5

Prérequis :

AERO0001-1 - Aerodynamics

PHYS0048-1 *Coherent and incoherent optics* (anglais) - Serge HABRAKEN B2 Q1 30 30 - 5

MECA0127-1 *Active structures* (anglais) - André PREUMONT B2 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 *Large deformation of solids* (anglais) - JeanPhilippe PONTHOT - [60h Proj.] B2 Q1 30 30 [+] 5

MECA0058-1 *Fracture mechanics, damage and fatigue* (anglais) - Ludovic NOELS - [75h Proj.] B2 Q1 30 10 [+] 5

MECA0062-1 *Vibration testing and experimental modal analysis* (anglais) - JeanClaude GOLINVAL - [30h Proj.] B2 Q1 30 30 [+] 5

Prérequis :

MECA0029-1 - Theory of vibration

INFO0939-1 *High performance scientific computing* (anglais) - Christophe GEUZAINÉ - [20h Proj.] B2 Q1 30 15 [+] 5

MECA0027-1 *Structural and multidisciplinary optimization* - Pierre DUYSINX, Patricia TOSSINGS - [18h Proj.] B2 Q1 30 12 [+] 5

INFO2046-2 *Computational geometry* (anglais) - Eric BÉCHET - [95h Proj.] B2 Q1 25 - [+] 5

MECA0470-1 *New methods in computational mechanics* (anglais) - Maarten ARNST, Eric BÉCHET, Ludovic NOELS - [40h Proj.] B2 Q2 20 - [+] 5

MECA0010-1 *Stochastic modelling* (anglais) - Maarten ARNST - [28h Proj.] B2 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.

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

Optional courses (B1 : 30Cr)

Single focus (B1 : 30Cr)

Research focus (B1 : 30Cr)

The student must choose 30 crédits of courses (B1 : 30Cr)

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

ASTG0116-1 *Observation internship* - Pierre DEWALLEF B1 TA - - - 3

ASTG0117-1 *Integration internship* - Pierre DEWALLEF B1 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 B1 Q1 36 - - 3

LANG2978-1 *Néerlandais pour l'ingénieur, partim 2* - Claudine COLIN B1 Q2 24 - - 2

LANG1958-1 *Allemand pour l'ingénieur, partim 1* (allemand) - Françoise CARL B1 Q1 36 - - 3

LANG2979-1 *Allemand pour l'ingénieur, partim 2* - Françoise CARL, ISLV B1 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.

Aeronautics

AERO0032-1 *Aeroelasticity and experimental aerodynamics* (anglais) - Thomas ANDRIANNE B1 Q1 30 30 - 5

AERO0015-1 *Mechanical design of turbomachinery* (anglais) - JeanClaude GOLINVAL - [30h Proj.] B1 Q1 30 30 [+] 5

MECA0502-1 *Mechanics of composites* (anglais) - Michaël BRUYNEEL B1 Q1 30 30 - 5

MECA0032-1 *Flow in turbomachineries* (anglais) - Olivier LÉONARD - [60h Proj.] B1 TA 30 30 [+] 5

AERO0004-1 *Turbulent Flows* (anglais) - Vincent TERRAPON - [40h Proj.] B1 Q1 30 30 [+] 5

AERO0033-1 *Aerothermodynamics of high-speed flows* (anglais) - Thierry MAGIN - [1j T. t.] B1 Q2 30 30 [+] 5

Space engineering

ASTR0004-2 *Astrophysics and space techniques* (anglais) - Jean SURDEJ - [5h Labo., 5h Proj., 5j T. t.] B1 TA 30 15 [+] 5

AERO0024-1 *Astrodynamic*s (anglais) - Gaëtan KERSCHEN - [20h Proj.] B1 Q1 30 30 [+] 5

SPAT0032-2 *Remote sensing* (anglais) - Christian BARBIER B1 Q1 30 30 - 5

AERO0026-1 *Launch vehicles design and propulsion* (anglais) - JeanLuc BOZET, Philippe NGENDAKUMANA B1 Q2 30 - - 5

ELEN0008-1 *Principes des télécommunications analogiques et numériques* - Marc VAN DROOGENBROECK B1 Q2 30 30 - 5

AERO0033-1 *Aerothermodynamics of high-speed flows* (anglais) - Thierry MAGIN - [1j T. t.] B1 Q2 30 30 [+] 5

PHYS0048-1 *Coherent and incoherent optics* (anglais) - Serge HABRAKEN B1 Q1 30 30 - 5

MECA0127-1 *Active structures* (anglais) - André PREUMONT B1 Q1 30 30 - 5

With the agreement of 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.]	B1	Q1	30	30	[+]	5
MECA0058-1	<i>Fracture mechanics, damage and fatigue</i> (anglais) - Ludovic NOELS - [75h Proj.]	B1	Q1	30	10	[+]	5
MECA0062-1	<i>Vibration testing and experimental modal analysis</i> (anglais) - JeanClaude GOLINVAL - [30h Proj.]	B1	Q1	30	30	[+]	5
INFO0939-1	<i>High performance scientific computing</i> (anglais) - Christophe GEUZAINÉ - [20h Proj.]	B1	Q1	30	15	[+]	5
MECA0027-1	<i>Structural and multidisciplinary optimization</i> - Pierre DUYSINX, Patricia TOSSINGS - [18h Proj.]	B1	Q1	30	12	[+]	5
INFO2046-2	<i>Computational geometry</i> (anglais) - Eric BÉCHET - [95h Proj.]	B1	Q1	25	-	[+]	5
MECA0470-1	<i>New methods in computational mechanics</i> (anglais) - Maarten ARNST, Eric BÉCHET, Ludovic NOELS - [40h Proj.]	B1	Q2	20	-	[+]	5
MECA0010-1	<i>Stochastic modelling</i> (anglais) - Maarten ARNST - [28h Proj.]	-	Q2	16	16	[+]	5

Note : 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 courses (B1 : 30Cr)

ATFE0005-1	<i>Master's thesis</i> - COLLÉGIALITÉ	B1	TA	-	-	-	25
GEST3162-1	<i>Principles of management</i> (anglais) - Michael GHILISSEN, François PICHAULT, Thierry PIRONET, Didier VAN CAILLIE	B1	Q1	25	25	-	5