First Year

Bringing up to date

Choose an upgrading course among the following :

ELEN0040-1	*Digital Electronics* - Jacques DESTINÉ	30	30	-	**5**
ELEN0070-1	*Signal Processing* - Jacques VERLY	30	30	-	**5**
ELEN0075-1	*Analog Electronics* - Benoît VANDERHEYDEN	30	30	-	**5**
INFO0062-1	*Object-Oriented Programming* - Bernard BOIGELOT	30	30	-	**5**
MECA0155-1	*Dynamics of Mechanical Systems* - JeanClaude GOLINVAL	30	30	-	**5**
MECA0446-1	*Continuum Mechanics* - JeanPhilippe PONTHOT	30	30	-	**5**
PHYS0055-1	*Introduction to Condensed Matter Physics* - Matthieu VERSTRAETE	30	30	-	**5**
ELEC0053-2	*Electric circuits* - Patricia ROUSSEAUX	30	30	-	**5**

Common core courses

Choose courses totaling 52 credits from the list below. The course not followed in the 1st year must be followed in the 2nd year :

MECA0036-1	*Finite Element Method* (english language) - JeanPhilippe PONTHOT	30	30	-	**5**
MATH0024-1	*Further Study of Digital Analysis (Equations with Partial Derivatives)* - Jean André ESSERS	30	30	-	**5**
MATH0461-1	*Introduction to numerical optimization* (english language) - Quentin LOUVEAUX	30	30	-	**5**
SYST0003-1	*Linear control systems* (english language) - Eric BULLINGER	30	30	-	**5**
INFO0939-1	*High performance scientific computing* (english language) - Christophe GEUZAINE	30	30	-	**5**
MATH0471-1	*Multiphysic scientific computating project : development of a partial differential equation solver* - Jean André ESSERS, Christophe GEUZAINE	-	20	-	**2**
PHYS0069-1	*Introduction to statistical physics* - Nicolas VANDEWALLE	30	30	-	**5**
CHIM0202-3	*Physical chemistry* - Edwin DE PAUW, Bernard LEYH	30	30	-	**5**
PHYS0048-1	*Coherent and Incoherent Optics* - Serge HABRAKEN	30	30	-	**5**
SPAT0048-4	*Physics of the earth's atmosphere and environment* - JeanClaude GÉRARD, Denis GRODENT	45	15	-	**5**
PHYS0961-1	*Irreversibility, instabilities and chaos* - Pierre DAUBY	30	30	-	**5**
ELEN0074-1	*Sensors, microsensors and instrumentation* - Philippe VANDERBEMDEN	30	30	-	**5**

Compulsory courses

[...] A general course to be chosen from the University's programmes of courses ; this choice must be approved by the cycle's President of the Jury

Students studying for the Bachelors in Civil Engineering who have not chosen the appropriate option :

* must take all the so-called "prerequisite" courses hereafter, if they were not taken during the 1st cycle. These courses must be taken during the 1st year of the masters and some 1st-year compulsory courses must be rolled over to the 2nd year.
* must subsequently reduce the number of courses they choose to take in the 2nd year of the masters. If all the "prerequisite" courses must be taken, it will be impossible for them to choose which courses they take.
* cannot choose the professional "management" focus.

The program adapted by these students has to receive the preliminary agreement of the Jury.

Compulsory prerequisites

PHYS2026-1	*Physics 4 : Microscopic physics (partime a : waves optics, partime b : introduction to nuclear physics)* - Ngoc Duy NGUYEN	30	30	-	**5**
MECA0445-1	*Heat transfer* - Michel HOGGE	30	30	-	**5**
MECA0025-1	*Fluid Mechanics* - Eric DELHEZ	30	30	-	**5**
PHYS0211-3	*Quantum Mechanics* - John MARTIN	30	30	-	**5**
MECA0012-5	*Solid mechanics* - Laurent DUCHENE	30	30	-	**5**
ELEN0076-1	*Electromagnetism* - Patricia ROUSSEAUX, Benoît VANDERHEYDEN	30	30	-	**5**

Compulsory courses

INFO0061-3	*Computers organization* - Bernard BOIGELOT	25	20	-	**5**
MECA0001-1	*Mechanics of materials* - JeanPierre JASPART	30	30	-	**5**

SYST0002-1	*Linear systems* - Rodolphe SEPULCHRE	30	30	-	**5**
MECA0445-1	*Heat transfer* - Michel HOGGE	30	30	-	**5**
MECA0025-1	*Fluid Mechanics* - Eric DELHEZ	30	30	-	**5**
MECA0012-5	*Solid mechanics* - Laurent DUCHENE	30	30	-	**5**
ELEN0076-1	*Electromagnetism* - Patricia ROUSSEAUX, Benoît VANDERHEYDEN	30	30	-	**5**
MECA0036-1	*Finite Element Method* (english language) - JeanPhilippe PONTHOT	30	30	-	**5**
MATH0024-1	*Further Study of Digital Analysis (Equations with Partial Derivatives)* - Jean André ESSERS	30	30	-	**5**
MATH0461-1	*Introduction to numerical optimization* (english language) - Quentin LOUVEAUX	30	30	-	**5**
INFO0939-1	*High performance scientific computing* (english language) - Christophe GEUZAINE	30	30	-	**5**
MATH0471-1	*Multiphysic scientific computating project : development of a partial differential equation solver* - Jean André ESSERS, Christophe GEUZAINE	-	20	-	**2**
PHYS0069-1	*Introduction to statistical physics* - Nicolas VANDEWALLE	30	30	-	**5**
CHIM0202-3	*Physical chemistry* - Edwin DE PAUW, Bernard LEYH	30	30	-	**5**
[...]	Non-technical training courses (to be chosen among courses on offer at the university ; the selection must meet with the approval of the president of the jury)				

Optional courses

Choose one of the following courses :

ELEN0040-1	*Digital Electronics* - Jacques DESTINÉ	30	30	-	**5**
ELEN0070-1	*Signal Processing* - Jacques VERLY	30	30	-	**5**
ELEN0075-1	*Analog Electronics* - Benoît VANDERHEYDEN	30	30	-	**5**
INFO0062-1	*Object-Oriented Programming* - Bernard BOIGELOT	30	30	-	**5**
MECA0155-1	*Dynamics of Mechanical Systems* - JeanClaude GOLINVAL	30	30	-	**5**
MECA0446-1	*Continuum Mechanics* - JeanPhilippe PONTHOT	30	30	-	**5**
PHYS0055-1	*Introduction to Condensed Matter Physics* - Matthieu VERSTRAETE	30	30	-	**5**

Second Year

Compulsory courses

ATFE0016-1	*Final Work (including an introduction to methodology and research)* - COLLÉGIALITÉ	-	-	-	**25**

Common core courses

Choose the course that was not taken in the first year of the Master's degree among the following :

MECA0036-1	*Finite Element Method* (english language) - JeanPhilippe PONTHOT	30	30	-	**5**
MATH0024-1	*Further Study of Digital Analysis (Equations with Partial Derivatives)* - Jean André ESSERS	30	30	-	**5**
MATH0461-1	*Introduction to numerical optimization* (english language) - Quentin LOUVEAUX	30	30	-	**5**
SYST0003-1	*Linear control systems* (english language) - Eric BULLINGER	30	30	-	**5**
INFO0939-1	*High performance scientific computing* (english language) - Christophe GEUZAINE	30	30	-	**5**
MATH0471-1	*Multiphysic scientific computating project : development of a partial differential equation solver* - Jean André ESSERS, Christophe GEUZAINE	-	20	-	**2**
PHYS0069-1	*Introduction to statistical physics* - Nicolas VANDEWALLE	30	30	-	**5**
CHIM0202-3	*Physical chemistry* - Edwin DE PAUW, Bernard LEYH	30	30	-	**5**
PHYS0048-1	*Coherent and Incoherent Optics* - Serge HABRAKEN	30	30	-	**5**
SPAT0048-4	*Physics of the earth's atmosphere and environment* - JeanClaude GÉRARD, Denis GRODENT	45	15	-	**5**
PHYS0961-1	*Irreversibility, instabilities and chaos* - Pierre DAUBY	30	30	-	**5**
ELEN0074-1	*Sensors, microsensors and instrumentation* - Philippe VANDERBEMDEN	30	30	-	**5**

Compulsory courses

GEST3001-1	*People management and organisation* - Jocelyne ROBERT	24	24	-	**4**
GEST3002-1	*Human Resources* - Jocelyne ROBERT	24	-	-	**2**
GEST3003-1	*Competitive strategy in the marketplace* (english language) - Michael GHILISSEN	16	16	-	**3**
GEST3004-1	*Marketing (operations and management)* (english language) - Michael GHILISSEN	16	16	-	**3**
GEST3005-2	*Accountancy and Finance* - Jacques BERWART	24	24	-	**4**
GEST3006-1	*Operations and supply chain management I* (english language) - Yasemin ARDA	16	16	-	**3**
GSTG3001-1	*Business plan* - COLLÉGIALITÉ	-	30	-	**4**

GSTG3002-1	*Functional analysis of a company* - COLLÉGIALITÉ - [30h Internship]	-	-	[+]	**4**

Optional courses

Choose one of the following courses :

GEST3010-1	*Operations and supply chain management II* - Sabine LIMBOURG	16	16	-	**3**
GEST3011-2	*ICT for Business* - Alain DUBOIS	16	16	-	**3**
GEST3012-1	*Financial and actuarial modelling* - Louis ESCH	16	16	-	**3**