

Students can choose **7 UE** maximum. We advise you to choose between 4 to 6 UE (30 ECTS).

4 to 6
ECTS



1 UE = 1 class

CM
(theory)

TD / TP
(practice)

2 exams

(midterms, finals, projects, tests)

To avoid schedule clashes, **you must choose your subjects in one department only.**

French classes



Undergraduate



Graduate - 1st year

- Mechanical Engineering
- Computer Science
- Industrial Systems
- Mechanical Engineering and Ergonomics
- Energy Engineering



Graduate - 2nd and 3rd year

- Specialization in a block

English classes



Undergraduate



Graduate - 1st year

- Mechanical Engineering
- Computer Science
- Energy Engineering



Graduate - 2nd and 3rd year

- Computer Science : specialization in Data Science & IA (Spring semester)
- Energy & Mechanical Engineering : free of choice

Free electives

You are free to add a few of the following classes:



Project class

- Subject free of choice under the lead of one of our teachers



Humanities class

- Languages and Social Sciences

You will find here below the list of the courses taught in English.

This list is from the year 2023-2024 and is given for information only.



Guide des UE

To discover all of our courses, go on [le guide des UE](#)

Sevenans Campus

 FALL SEMESTER

UE code	Name	ECTS credits
MT3E	Second year algebra and analys	6
PS29	Rigid Body Mechanics	6
IF3E/IF3B	Introducing to databases / Practical Computer Science	6

 SPRING SEMESTER

UE code	Name	ECTS credits
PS28	Thermodynamics	6
EL22	Introduction to automatisisation	6
LP2A/LP2B	Introduction to object conception and programming / Multimedia: digital representation	6

 FALL SEMESTER

UE code	Name	ECTS credits	Year
MT40	Numerical analysis	6	1
CP58	Lean Product Development	6	2/3
MN56	Advanced modelling and smiluation in mechanical engineering	6	2/3

 SPRING SEMESTER

UE code	Name	ECTS credits	Year
CP41	Design methods in mechanical engineering	6	1
MN44	Introduction to mobile-physics simulation	6	1
CP51	PLM and Design for X	6	2/3
CP55	Design and modelling for additive manufacturing	6	2/3
MA53	Material forming and product assembly	6	2/3
MA54	Engineering of innovative materials for design	6	2/3

Belfort Campus

 FALL SEMESTER			
UE code	Name	ECTS credits	Year
ER55	Renewable energy: design and control	6	2/3
ER59	Technology, regulation, safety and maintenance of hydrogen energy systems	6	2/3
ER66	Power system analysis and control	6	2/3

 SPRING SEMESTER			
UE code	Name	ECTS credits	Year
OI43	Introduction to Matlab - Simulink	6	1
ER54	Renewable Energy: principle and technology	6	2/3
ER63	Energy storage	6	2/3
SM51	Embedded systems technology	6	2/3
EN53	CEM: theoretical and practical approach	6	2/3

 FALL SEMESTER			
UE code	Name	ECTS credits	Year
PC40	Parallel Computing and Multicolore Architec	6	1
RE4E/RE4F	Indroduction to networks / Routing and switching essentials	6	1
IA53	Machine learning by practice	6	2/3
AI51	Multi-Agent systems and simulation	6	2/3
SV51	Systems and networks virtualization	6	2/3
DA51	Blockchain and distributed system	6	2/3
DA53	Compiler and language theory	6	2/3

 SPRING SEMESTER			
UE code	Name	ECTS credits	Year
IT41	Classical and Quantum Algorithms	6	1
SY43	Android development	6	1
RI53	Radio networks	6	2 / 3
DATA SCIENCE AND IA (block)		26	2 / 3
DS50	Development project	5	2 / 3
DS51	Smart analytics and data management	5	2 / 3
DS52	Business intelligence big data	5	2 / 3
DS53	Data science fundamentals	5	2 / 3
DA53	Associate cloud engineer	6	2 / 3

Courses from the Data Science & IA block must be taken together (DS50, DS51, DS52, DS53, DA53).

Free electives

Project UE

  FALL & SPRING SEMESTERS		
UE code	Name	ECTS credits
TO51	Project in Mechanical Engineering	6
TY21	Project in Computer Science	6
TY41-42-43	Project in Energy Engineering	6
ESP3	Tutored project	6
ESP4	Tutored project	12
ESP5	Tutored project	18

Social Sciences

UE code	Name	Semester	ECTS credits
EC07	Nudges		5
CC03	American studies		5
CC05	Intercultural awareness: how to become a global citizen ?	 	5
EI02	The rest of the English speaking world	 	5
EI03	International security and global challenges	 	5
EV02	Energy and environment		5
EV03	Sustainable Development		5
EV04	Environmental and energy economics		5

Free electives

Languages

  FALL & SPRING SEMESTERS		
UE code	Name	ECTS credits
LC00 - LC01 - LC02	Chinese (level 0-2)	4
LE01 - LE02	English (level 1-2)	4
LE03	English Level 3	6
LE05	Business English	4
LE07	Technology and Industrial English	4
LE09	Oral communication in English	4
LF70 - LF71 - LF72 - LF73	French (level 0-3)	4
LF74	French (level 4)	6
LG00 - LG01 - LG02	German (level 0-2)	4
LG03	German Level 3	6
LI00 - LI01	Italian (level 0-1)	4
LK00 - LK01	Korean (level 0-1)	4
LS00 - LS01 - LS02	Spanish (level 0-2)	4
LS03	Spanish Level 3	6
LR00	Russian Level 0	4

To discover all of our courses, go on [le guide des UE](#)

Année universitaire

2024/2025 (actuelle)

▼

Type de formation

Formation d'Ingénieur

✕ ▼

Formation

Formation d'ingénieur sous statut étudiant l...

✕ ▼

Filière | Bloc métier

▼

Langue d'enseignement











Catégorie

CS

TM

ST

EC

OM

QC

Semestre

Automne

Printemps

Domaine de compétences

▼

Choose the year and “Formation d’Ingénieur”

Choose your department

Choose your block

Energy Engineering	Formation d'ingénieur sous statut étudiant Energie et génie électrique
Industrial Systems	Formation d'ingénieur sous statut étudiant Génie industriel
Computer Science	Formation d'ingénieur sous statut étudiant Informatique
Mechanical Engineering	Formation d'ingénieur sous statut étudiant Mécanique
Mechanical Engineering and Ergonomics	Formation d'ingénieur sous statut étudiant Mécanique et ergonomie
Undergraduate	Premier cycle [Département Tronc Commun]

Choose the language of study

Choose your semester

UE	Libellé	Langue	Catégorie	Domaines de compétences	Filières Blocs métier	Caractéristiques	Automne	Printemps
AI50	Intelligence artificielle: le projet complet sur 6 mois		TM		IA **		ouverte	
AI51	Systèmes multiagents et simulation		TM		IA **		ouverte	
AI52	Optimisation et recherche opérationnelle avancée		TM		IA **		ouverte	
AI53	Machine learning by practice		TM		IA **		ouverte	
AM0	Improvisation et interprétation musicale						ouverte	ouverte
AM02	Pratique et création artistique		QC				ouverte	ouverte

Code

Teaching language

Level / courses type

- CS: fundamental
- TM : advanced
- QC/OM : social sciences
- EC: languages /

Semester

- Ouverte = open
- Fermée = closed