



Course List

Incoming Students

2026-2027

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ESILV – Course List 4th Year – CCC – Fall Semester

Fall Semester – S07

Teaching Unit (TU)	ECTS by TU	ECTS by Course	Code	Course
CORE	5	3	MESIFI470125	Advanced probability
		2	MESIIN470225	Machine Learning
PROJECT	7	5	MESIGP470125	Project
		1	MESIGP470325	Project Methodology
		1	MESIGP470425	Research Methodology
		-	MESISK470625	Project : SoftSkills Support
SOFT SKILLS	1	1	MESIDV470125	Ethique de l'ingénieur / Engineer Ethics
		-	MESILVS7+125	FLE (French)
		-	MESISK470125	Formation au MBTI / MBTI training
SPECIALIZATION CCC	10	2	MESIIN475225	Infrastructure Technology
		1	NEW	Applied Security
		2	NEW	Cloud Optimization
		1	NEW	IA for Secure Engineering
		2	MESIIN477325	Cybersecurity Landscape
		2	MESIIN477625	Operating systems
SOFT SKILLS	1	1	MESISK470225	Internship preparation
TRACK COMPUTER SCIENCE	6	1	MESIIN475625	Scrum certification
		3	MESIIN475725	Software engineering and development
		2	MESIIN478025	Rust Development
Total	30	30		

ESILV – Course List 4th Year – DIA – Fall Semester

Fall Semester – S07

Teaching Unit (TU)	ECTS by TU	ECTS by Course	Code	Course Name
CORE	5	3	MESIFI470125	Advanced probability
		2	MESIIN470225	Machine Learning
PROJECT	7	5	MESIGP470125	Project
		1	MESIGP470325	Project Methodology
		1	MESIGP470425	Research Methodology
		-	MESISK470625	Project : SoftSkills Support
SOFT SKILLS	1	1	MESIDV470125	Ethique de l'ingénieur / Engineer ethics
		-	MESILVS7+125	FLE (French)
		-	MESISK470125	Formation au MBTI / MBTI training
SPECIALIZATION DIA	10	2	MESIIN471625	Advanced programming in data science
		2	MESIIN475825	Mathematics for Deep Learning
		2	MESIIN475925	Next-Generation AI
		2	MESIIN476025	AI Algorithms
		2	MESIIN477725	Neural Networks and Deep Learning
SOFT SKILLS	1	1	MESISK470225	Internship preparation
TRACK COMPUTER SCIENCE	6	1	MESIIN475625	Scrum certification
		3	MESIIN475725	Software engineering and development
		2	MESIIN478025	Containerization Technologies
Total	30	30		

ESILV – Course List 4th Year – EVD – Fall Semester

Fall Semester – S07

Teaching Unit (TU)	ECTS by TU	ECTS by Course	Code	Course
CORE	5	3	MESIFI470125	Advanced probability
		2	MESIIN470225	Machine Learning
PROJECT	7	5	MESIGP470125	Project
		1	MESIGP470325	Project Methodology
		1	MESIGP470425	Research Methodology
		-	MESISK470625	Project : SoftSkills Support
SOFT SKILLS	1	1	MESIDV470125	Ethique de l'ingénieur / Engineer ethics
		-	MESILVS7+125	FLE (French)
		-	MESISK470125	Formation au MBTI / MBTI training
SPECIALIZATION EVD	10	2	MESISI470225	Fluid Mechanics
		2	MESISI471925	Energetic efficiency & Smart Metering
		1	MESISI472125	Decarbonisation and Energy Mix
		1	MESISI472225	Nuclear Energy
		2	MESISI472325	Solar Energy
		2	MESISI472425	Wind Energy
		-	MESISI475225	Masterclass Transformation of Territories and Smart Cities
SOFT SKILLS	1	1	MESISK470225	Internship preparation
TRACK ENGINEERING SCIENCES	6	2	MESISI471225	Dynamics of vehicles and powertrains systems
		2	MESISI473325	Sustainable innovation
		2	MESISI474725	Building stress analysis and design
Total	30	30		

ESILV – Course List 4th Year – FIN – Fall Semester

Fall Semester – S07

Teaching Unit (TU)	ECTS by TU	ECTS by Course	Code	Course
CORE	5	3	MESIFI470125	Advanced probability
		2	MESIIN470225	Machine Learning
PROJECT	7	5	MESIGP470125	Project
		1	MESIGP470325	Project Methodology
		1	MESIGP470425	Research Methodology
		-	MESISK470625	Project : SoftSkills Support
SOFT SKILLS	1	1	MESIDV470125	Ethique de l'ingénieur / Engineer ethics
		-	MESILVS7+125	FLE (French)
		-	MESISK470125	Formation au MBTI / MBTI training
SPECIALIZATION FIN	10	1	MESIIN470425	Cryptocurrencies Market
		3	MESIIN470625	Blockchain Programming
		2	MESIIN473325	Rust Programming
		2	MESIIN476425	Symmetric-key algorithm
		2	MESIIN477625	Operating systems
SOFT SKILLS	1	1	MESISK470225	Internship preparation
TRACK COMPUTER SCIENCE	6	1	MESIIN475625	Scrum certification
		3	MESIIN475725	Software engineering and development
		2	MESIIN478025	Rust Development
Total	30	30		

ESILV – Course List 4th Year – IRO – Fall Semester

Fall Semester – S07

Teaching Unit (TU)	ECTS by TU	ECTS by Course	Code	Course
CORE	5	3	MESIFI470125	Advanced probability
		2	MESIIN470225	Machine Learning
PROJECT	7	5	MESIGP470125	Project
		1	MESIGP470325	Project Methodology
		1	MESIGP470425	Research Methodology
		-	MESISK470625	Project : SoftSkills Support
SOFT SKILLS	1	1	MESIDV470125	Ethique de l'ingénieur / Engineer Ethics
		-	MESILVS7+125	FLE (French)
		-	MESISK470125	Formation au MBTI / MBTI training
SPECIALIZATION IRO	10	1	MESIIN474625	Hardware Software Interface
		2	MESIIN476725	Model-based systems Engineering
		1	MESIIN476825	Production and industrial management
		2	MESISI474525	Supply Chain Management
		2	MESISI475325	Artificial intelligence in industry: IoT
		2	MESISI475425	Mobile Robots
		-	MESISI475525	Masterclass Defense Robotics
SOFT SKILLS	1	1	MESISK470225	Internship preparation
TRACK CYBER PHYSICAL HUMAN SYSTEMS	6	2	MESIIN477025	Data Analytics
		2	MESIIN477125	Augmented and Virtual Reality
		2	MESISI474625	Robotics
Total	7	7		

ESILV – Course List 4th Year – OCC – Fall Semester

Fall Semester – S07

Teaching Unit (TU)	ECTS by TU	ECTS by Course	Code	Course
CORE	5	3	MESIFI470125	Advanced probability
		2	MESIIN470225	Machine Learning
PROJECT	7	5	MESIGP470125	Project
		1	MESIGP470325	Project Methodology
		1	MESIGP470425	Research Methodology
		-	MESISK470625	Project : SoftSkills Support
SOFT SKILLS	1	1	MESIDV470125	Ethique de l'ingénieur / Engineer Ethics
		-	MESILVS7+125	FLE (French)
		-	MESISK470125	Formation au MBTI / MBTI training
SPECIALIZATION OCC	10	2	MESIIN471925	Virtualisation & Trust
		2	MESIIN474025	Securing Embedded Software
		2	MESIIN476125	OS Architecture
		2	MESIIN477325	HW Layer Security
		2	MESIIN477825	Network Architecture
SOFT SKILLS	1	1	MESISK470225	Internship preparation
TRACK COMPUTER SCIENCE	6	1	MESIIN475625	Scrum certification
		3	MESIIN475725	Software engineering and development
		2	MESIIN478025	Rust Development
Total	30	30		

ESILV – Course List 4th Year – MMN – Fall Semester

Fall Semester – S07

Teaching Unit (TU)	ECTS by TU	ECTS by Course	Code	Course
CORE	5	3	MESIFI470125	Advanced probability
		2	MESIIN470225	Machine Learning
PROJECT	7	5	MESIGP470125	Project
		1	MESIGP470325	Project Methodology
		1	MESIGP470425	Research Methodology
		-	MESISK470625	Project : SoftSkills Support
SOFT SKILLS	1	1	MESIDV470125	Ethique de l'ingénieur / Engineer Ethics
		-	MESILVS7+125	FLE (French)
		-	MESISK470125	Formation au MBTI / MBTI training
SPECIALIZATION MMN	10	2	MESISI470225	Fluid Mechanics
		3	MESISI470625	Continuum Mechanics
		1	MESISI472625	Systems and Control
		2	MESISI473525	Probabilistic and reliability methods
		2	MESISI473625	Finite Element Analysis
SOFT SKILLS	1	1	MESISK470225	Internship preparation
TRACK ENGINEERING SCIENCES	6	2	MESISI471225	Dynamics of vehicles and powertrains systems
		2	MESISI473325	Sustainable innovation
		2	MESISI474725	Building stress analysis and design
Total	30	30		

ESILV – Course List 4th Year – ASD – Fall Semester

Fall Semester – S07

Teaching Unit (TU)	ECTS by TU	ECTS by Course	Code	Course
CORE	5	3	MESIFI470125	Advanced probability
		2	MESIIN470225	Machine Learning
PROJECT	7	5	MESIGP470125	Project
		1	MESIGP470325	Project Methodology
		1	MESIGP470425	Research Methodology
		-	MESISK470625	Project : SoftSkills Support
SOFT SKILLS	1	1	MESIDV470125	Ethique de l'ingénieur / Engineer Ethics
		-	MESILVS7+125	FLE (French)
		-	MESISK470125	Formation au MBTI / MBTI training
SPECIALIZATION ASD	10	2	MESISI474825	Atmosphere and space
		2	MESISI474925	Orbital mechanics
		2	MESISI475025	Propulsion of airplanes
		2	MESISI475125	Communications
		2		Defense in aerospace - doctrines, systems and capabilities
SOFT SKILLS	1	1	MESISK470225	Internship preparation
TRACK ENGINEERING SCIENCES	6	2	MESISI471225	Dynamics of vehicles and powertrains systems
		2	MESISI473325	Sustainable innovation
		2	MESISI474725	Building stress analysis and design
Total	30	30		

ESILV – Course List 4th Year – MDS – Fall Semester

Fall Semester – S07

Teaching Unit (TU)	ECTS by TU	ECTS by Course	Code	Course
CORE	5	3	MESIFI470125	Advanced probability
		2	MESIIN470225	Machine Learning
PROJECT	7	5	MESIGP470125	Project
		1	MESIGP470325	Project Methodology
		1	MESIGP470425	Research Methodology
		-	MESISK470625	Project : SoftSkills Support
SOFT SKILLS	1	1	MESIDV470125	Ethique de l'ingénieur / Engineer Ethics
		-	MESILVS7+125	FLE (French)
		-	MESISK470125	Formation au MBTI / MBTI training
SPECIALIZATION MDS	10	2	MESIIN477925	Internet of Things
		2	MESISI470725	Biology fundamentals
		2	MESISI471525	Health, autonomy and biotechnology: economy and organisation
		2	MESISI473825	Sensors and optoelectronics
		2	MESISI473925	Modeling biological systems
SOFT SKILLS	1	1	MESISK470225	Internship preparation
TRACK CYBER PHYSICAL HUMAN SYSTEMS	6	2	MESIIN477025	Data Analytics
		2	MESIIN477125	Augmented and Virtual Reality
		2	MESISI474625	Robotics
Total	30	30		

ESILV – Course List 4th Year – IF – Fall Semester

Fall Semester – S07

Teaching Unit (TU)	ECTS by TU	ECTS by Course	Code	Course
CORE	5	3	MESIFI470125	Advanced probability
		2	MESIIN470225	Machine Learning
PROJECT	7	5	MESIGP470125	Project
		1	MESIGP470325	Project Methodology
		1	MESIGP470425	Research Methodology
		-	MESISK470625	Project : SoftSkills Support
SOFT SKILLS	1	1	MESIDV470125	Ethique de l'ingénieur / Engineer Ethics
		-	MESILVS7+125	FLE (French)
		-	MESISK470125	Formation au MBTI / MBTI training
SPECIALIZATION IF	10	2	MESIFI471125	C++ for finance
		2	MESIFI471325	Market risk
		3	MESIFI472025	Advanced statistics
		1	MESIFI472125	Introduction to financial markets and instruments
		2	MESIFI472325	Python, Git, Linux
SOFT SKILLS	1	1	MESISK470225	Internship preparation
TRACK FINANCE & ASSURANCE	6	2	MESIFI470725	Advanced financial concepts and models
		2	MESIFI471025	Time series econometrics
		2	MESIFI472225	VBA
Total	30	30		

ESILV – Course List 4th Year – CCC – Spring Semester

Spring Semester – S08

Teaching Unit (TU)	ECTS by TU	ECTS by Course	Code	Course
CORE	4	2	MESIFI482125	Statistical Risk Analysis and Game Theory
		2	MESISI482525	Computational modeling
PROJECT	5	5	MESIGP480125	Project
SOFT SKILLS	1	1	MATXSK480125	Hackathon Year 4
		-	MESILVF8+125	FLE (French)
SPECIALIZATION CCC	8	2	MESIIN482425	Code Deployment
		2	MESIIN484425	Advanced Infrastructure
		2	MESIIN485025	Forensic
		2	MESIIN486125	Cloud administration
STAGE	6	6	MESIST480125	Internship Year 4
TRACK COMPUTER SCIENCE	6	2	MESIIN480325	NoSQL
		2	MESIIN483625	Containerization Technologies
		2	MESIIN483825	Trusted AI
Total	30	30		

ESILV – Course List 4th Year – DIA – Spring Semester

Spring Semester – S08

Teaching Unit (TU)	ECTS by TU	ECTS by Course	Code	Course
CORE	4	2	MESIFI482125	Statistical Risk Analysis and Game Theory
		2	MESISI482525	Computational modeling
PROJECT	5	5	MESIGP480125	Project
SOFT SKILLS	1	1	MATXSK480125	Hackathon Year 4
		-	MESILVF8+125	FLE (French)
SPECIALIZATION DIA	8	2	MESIIN480125	Advanced Deep Learning
		2	MESIIN480225	Web datamining & semantics
		2	MESIIN484225	ML OPS
		2	MESIIN485725	Information Retrieval and NLP
STAGE	6	6	MESIST480125	Internship Year 4
TRACK COMPUTER SCIENCE	6	2	MESIIN480325	NoSQL
		2	MESIIN483625	Rust Development
		2	MESIIN483825	Trusted AI
Total	30	30		

ESILV – Course List 4th Year – EVD – Spring Semester

Spring Semester – S08

Teaching Unit (TU)	ECTS by TU	ECTS by Course	Code	Course
CORE	4	2	MESIFI482125	Statistical Risk Analysis and Game Theory
		2	MESISI482525	Computational modeling
PROJECT	5	5	MESIGP480125	Project
SOFT SKILLS	1	1	MATXSK480125	Hackathon Year 4
		-	MESILVF8+125	FLE (French)
SPECIALIZATION EVD	8	2	MESIIN485825	IoT for smart buildings
		2	MESISI481825	Building Thermal Simulation
		2	MESISI482925	BIM
		-	MESISI483825	Masterclass Smart Buildings
		2	MESISI484025	Hydroelectricity
		-	MESISI595225	Masterclass Design of battery electric vehicle
STAGE	6	6	MESIST480125	Internship Year 4
TRACK ENGINEERING SCIENCES	6	2	MESIIN484025	Image processing
		2	MESIIN484125	Applications of AI
		2	MESISI482725	Thermochemistry
Total	30	30		

ESILV – Course List 4th Year – FIN – Spring Semester

Spring Semester – S08

Teaching Unit (TU)	ECTS by TU	ECTS by Course	Code	Course
CORE	4	2	MESIFI482125	Statistical Risk Analysis and Game Theory
		2	MESISI482525	Computational modeling
PROJECT	5	5	MESIGP480125	Project
SOFT SKILLS	1	1	MATXSK480125	Hackathon Year 4
		-	MESILVF8+125	FLE (French)
SPECIALIZATION FIN	8	3	MESIIN484525	Decentralized Finance
		1	MESIIN484625	Public-key cryptography
		2	MESIIN484725	Web Development
		2	MESIIN485925	Machine Learning for Fintech
STAGE	6	6	MESIST480125	Internship Year 4
TRACK COMPUTER SCIENCE	6	2	MESIIN480325	NoSQL
		2	MESIIN483625	Containerization Technologies
		2	MESIIN483825	Trusted AI
Total	30	30		

ESILV – Course List 4th Year – IRO – Spring Semester

Spring Semester – S08

Teaching Unit (TU)	ECTS by TU	ECTS by Course	Code	Course
CORE	4	2	MESIFI482125	Statistical Risk Analysis and Game Theory
		2	MESISI482525	Computational modeling
PROJECT	5	5	MESIGP480125	Project
SOFT SKILLS	1	1	MATXSK480125	Hackathon Year 4
		-	MESILVF8+125	FLE (French)
SPECIALIZATION IRO	8	1	MESIIN482725	Industrial Automation
		2	MESIIN485525	Robot Operating System (ROS2)
		1	MESISI481625	Industrial Operations Management
		2	MESISI483925	Mechatronic Systems
		2	MESISI484625	Robot dynamics & control
STAGE	6	6	MESIST480125	Internship Year 4
TRACK CYBER PHYSICAL HUMAN SYSTEMS	6	2	MESIIN485225	Embedded Artificial Intelligence
		2	MESIIN485325	Computer Vision
		2	MESISI484925	Finite element methods
Total	12	12		

ESILV – Course List 4th Year – OCC – Spring Semester

Spring Semester – S08

Teaching Unit (TU)	ECTS by TU	ECTS by Course	Code	Course
CORE	4	2	MESIFI482125	Statistical Risk Analysis and Game Theory
		2	MESISI482525	Computational modeling
PROJECT	5	5	MESIGP480125	Project
SOFT SKILLS	1	1	MATXSK480125	Hackathon Year 4
		-	MESILVF8+125	FLE (French)
SPECIALIZATION OCC	8	2	MESIIN482125	OS Hardening
		2	MESIIN482225	Network Hardening
		2	MESIIN484325	Radio Frequency Identification
		2	MESIIN486025	Reverse & forensic
STAGE	6	6	MESIST480125	Internship Year 4
TRACK COMPUTER SCIENCE	6	2	MESIIN480325	NoSQL
		2	MESIIN483625	Containerization Technologies
		2	MESIIN483825	Trusted AI
Total	30	30		

ESILV – Course List 4th Year – MMN – Spring Semester

Spring Semester – S08

Teaching Unit (TU)	ECTS by TU	ECTS by Course	Code	Course
CORE	4	2	MESIFI482125	Statistical Risk Analysis and Game Theory
		2	MESISI482525	Computational modeling
PROJECT	5	5	MESIGP480125	Project
SOFT SKILLS	1	1	MATXSK480125	Hackathon Year 4
		-	MESILVF8+125	FLE (French)
SPECIALIZATION MMN	8	-	MAEIIN480125	MasterClass CATIA (en français)
		2	MESISI480425	Computational Solid Mechanics
		2	MESISI480725	Computation Fluid Dynamics (CFD)
		2	MESISI482825	Materials and behavior
		2	MESISI484725	Supply chain
STAGE	6	-	MESISI595225	Masterclass Design of battery electric vehicle
		6	MESIST480125	Internship Year 4
TRACK ENGINEERING SCIENCES	6	2	MESIIN484025	Image processing
		2	MESIIN484125	Applications of AI
		2	MESISI482725	Thermochemistry
Total	30	30		

ESILV – Course List 4th Year – ASD – Spring Semester

Spring Semester – S08

Teaching Unit (TU)	ECTS by TU	ECTS by Course	Code	Course
CORE	4	2	MESIFI482125	Statistical Risk Analysis and Game Theory
		2	MESISI482525	Computational modeling
PROJECT	5	5	MESIGP480125	Project
SOFT SKILLS	1	1	MATXSK480125	Hackathon Year 4
		-	MESILVF8+125	FLE (French)
SPECIALIZATION ASD	8	2	MESISI484125	Computational fluid dynamics of flights
		1	MESISI484525	Structural mechanics for aerospace
		2	MESISI484325	Propulsion and control of rockets
		2	MESISI484425	Defense in Aerospace - project management
		1		Cyber-defense
STAGE	6	6	MESIST480125	Internship Year 4
TRACK ENGINEERING SCIENCES	6	2	MESIIN484025	Image processing
		2	MESIIN484125	Applications of AI
		2	MESISI482725	Thermochemistry
Total	30	30		

ESILV – Course List 4th Year – MDS – Spring Semester

Spring Semester – S08

Teaching Unit (TU)	ECTS by TU	ECTS by Course	Code	Course
CORE	4	2	MESIFI482125	Statistical Risk Analysis and Game Theory
		2	MESISI482525	Computational modeling
PROJECT	5	5	MESIGP480125	Project
SOFT SKILLS	1	1	MATXSK480125	Hackathon Year 4
		-	MESILVF8+125	FLE (French)
SPECIALIZATION MDS	8	2	MESISI474425	Control Theory
		1	MESISI483025	Ethics, quality and regulation
		1	MESISI483225	Applied data analysis
		1	MESISI483325	Telehealth & Health information systems
		2	MESISI483425	Experimental methodology and biostatistics
		1	MESISI484825	Medical CAD/CAM
STAGE	6	6	MESIST480125	Internship Year 4
TRACK CYBER PHYSICAL HUMAN SYSTEMS	6	2	MESIIN485225	Embedded Artificial Intelligence
		2	MESIIN485325	Computer Vision
		2	MESISI484925	Finite element methods
Total	30	30		

ESILV – Course List 4th Year – IF – Spring Semester

Spring Semester – S08

Teaching Unit (TU)	ECTS by TU	ECTS by Course	Code	Course
CORE	4	2	MESIFI482125	Statistical Risk Analysis and Game Theory
		2	MESISI482525	Computational modeling
PROJECT	5	5	MESIGP480125	Project
SOFT SKILLS	1	1	MATXSK480125	Hackathon Year 4
		-	MESILVF8+125	FLE (French)
SPECIALIZATION IF	8	3	MESIFI480725	Stochastic calculus
		2	MESIFI480925	Derivatives pricing and hedging
		2	MESIFI481325	Machine learning and asset management
		1	MESIFI482325	Commodities markets and models
STAGE	6	6	MESIST480125	Internship Year 4
TRACK FINANCE & ASSURANCE	6	2	MESIFI481025	Portfolio Management
		1	MESIFI481125	Equity derivatives
		2	MESIFI481225	Simulation methods
		1	MESIFI482225	Advanced times series econometrics
Total	30	30		

ESILV – Course List 5th Year – CCC – Fall Semester

Fall Semester – S09

Teaching Unit (TU)	ECTS by TU	ECTS by Course	Code	Course
CORE	4	2	MESIIN594125	Data protection management
		2	MESISI594225	Product Life-cycle Management (PLM)
LANGUAGES	0	-	MESILVS-0525	FLE (French)
PROJECT	5	1	MESIEI591525	Thesis methodology
		4	MESIGP59+125	Project
		-	MESISK590225	Accompagnement SoftSkills Projet A5 / Soft Skills Year 5 Project Support
SOFT SKILLS	3	1,5	MATXSK590125	Séminaire A5 Soft Skills et Leadership / Year 5 seminar Soft Skills & Leadership
		1,5	MESISK590125	Marketing Yourself et négociation salariale / Marketing Yourself & salary negotiation
SPECIALIZATION CCC	12	2	MESIIN593225	Advanced Network Security
		2	MESIIN593425	Cloud Orchestration
		2	MESIIN594625	Cloud Data Structure
		2	MESIIN594925	PenTest
		2	MESIIN595825	Governance Risk and Compliance
		2	MESIIN595925	Cyber Resilience & Crisis Management
TRACK COMPUTER SCIENCE	6	2	MESIIN594325	Security use cases
		2	MESIIN594425	Graph and mining
		2	MESIIN594525	Gen AI prompting and copilot
Total	30	30		

ESILV – Course List 5th Year – DIA – Fall Semester

Fall Semester – S09

Teaching Unit (TU)	ECTS by TU	ECTS by Course	Code	Course
CORE	4	2	MESIIN594125	Data protection management
		2	MESISI594225	Product Life-cycle Management (PLM)
LANGUAGES	0	-	MESILVS-0525	FLE (French)
PROJECT	5	1	MESIEI591525	Thesis methodology
		4	MESIGP59+125	Project
		-	MESISK590225	Accompagnement SoftSkills Projet A5 / Soft Skills Year 5 Project Support
SOFT SKILLS	3	1,5	MATXSK590125	Séminaire A5 Soft Skills et Leadership / Year 5 seminar Soft Skills & Leadership
		1,5	MESISK590125	Marketing Yourself et négociation salariale / Marketing Yourself & salary negotiation
SPECIALIZATION DIA	12	2	MESIIN595025	Large Language Models and Generative AI
		2	MESIIN595125	Computer Vision and Deep Learning
		2	MESIIN595225	Spark for Big data
		1	MESIIN595325	Explainability AI
		2	MESIIN595525	BI Pipeline
		2	MESIIN595625	Advanced expertise in machine learning
		1	MESIIN596525	Big data structure
TRACK COMPUTER SCIENCE	6	2	MESIIN594325	Security use cases
		2	MESIIN594425	Graph and mining
		2	MESIIN594525	Gen AI prompting and copilot
Total	30	30		

ESILV – Course List 5th Year – EVD – Fall Semester

Fall Semester – S09

Teaching Unit (TU)	ECTS by TU	ECTS by Course	Code	Course
CORE	4	2	MESIIN594125	Data protection management
		2	MESISI594225	Product Life-cycle Management (PLM)
LANGUAGES	0	-	MESILVS-0525	FLE (French)
PROJECT	5	1	MESIEI591525	Thesis methodology
		4	MESIGP59+125	Project
		-	MESISK590225	Accompagnement SoftSkills Projet A5 / Soft Skills Year 5 Project Support
SOFT SKILLS	3	1,5	MATXSK590125	Séminaire A5 Soft Skills et Leadership / Year 5 seminar Soft Skills & Leadership
		1,5	MESISK590125	Marketing Yourself et négociation salariale / Marketing Yourself & salary negotiation
SPECIALIZATION EVD	12	3	MESISI592625	Energy Storage Systems
		3	MESISI592725	Ecodistrict
		1	MESISI592825	Environmental Regulation RE2020
		1	MESISI593025	Sustainable Projects : Low Tech & Social Economy
		2	MESISI594425	Life Cycle Analysis
		2	MESISI594525	Eco-conception of buildings
		-	MESISI595225	Masterclass Design of battery electric vehicle
TRACK ENGINEERING SCIENCES	6	2	MESISI590425	Material accounting
		2	MESISI592125	Industrial Design
		2	MESISI594325	Sustainable Automobile Engineering
Total	30	30		

ESILV – Course List 5th Year – FIN – Fall Semester

Fall Semester – S09

Teaching Unit (TU)	ECTS by TU	ECTS by Course	Code	Course
CORE	4	2	MESIIN594125	Data protection management
		2	MESISI594225	Product Life-cycle Management (PLM)
LANGUAGES	0	-	MESILVS-0525	FLE (French)
PROJECT	5	1	MESIEI591525	Thesis methodology
		4	MESIGP59+125	Project
		-	MESISK590225	Accompagnement SoftSkills Projet A5 / Soft Skills Year 5 Project Support
SOFT SKILLS	3	1,5	MATXSK590125	Séminaire A5 Soft Skills et Leadership / Year 5 seminar Soft Skills & Leadership
		1,5	MESISK590125	Marketing Yourself et négociation salariale / Marketing Yourself & salary negotiation
SPECIALIZATION FIN	12	1	MESIFI590225	Cryptofinance
		2	MESIFI590325	Lightning Network
		3	MESIFI590425	Monnaies Numériques / Digital currency
		1	MESIFI592125	Mobile Development
		2	MESIFI592725	Proof of Stake
		1	MESIFI592825	Zero Knowledge Proofs
		1	MESIFI594725	Payment overview
		1	MESIIN596225	Security and performance of smart contracts
TRACK COMPUTER SCIENCE	6	2	MESIIN594325	Security use cases
		2	MESIIN594425	Graph and mining
		2	MESIIN594525	Gen AI prompting and copilot
Total	30	30		

ESILV – Course List 5th Year – IRO – Fall Semester

Fall Semester – S09

Teaching Unit (TU)	ECTS by TU	ECTS by Course	Code	Course
CORE	4	2	MESIIN594125	Data protection management
		2	MESISI594225	Product Life-cycle Management (PLM)
LANGUAGES	0	-	MESILVS-0525	FLE (French)
PROJECT	5	1	MESIEI591525	Thesis methodology
		4	MESIGP59+125	Project
		-	MESISK590225	Accompagnement SoftSkills Projet A5 / Soft Skills Year 5 Project Support
SOFT SKILLS	3	1,5	MATXSK590125	Séminaire A5 Soft Skills et Leadership / Year 5 seminar Soft Skills & Leadership
		1,5	MESISK590125	Marketing Yourself et négociation salariale / Marketing Yourself & salary negotiation
SPECIALIZATION IRO	12	2	MESIIN592725	Autonomous Embedded Systems
		3	MESISI590525	Connected Factory
		2	MESISI591425	Industrial Data Management
		2	MESISI591725	Multidisciplinary Design Optimization
		3	MESISI595125	Safety and Security
TRACK CYBER PHYSICAL HUMAN SYSTEMS	6	2	MESISI590325	Additive Manufacturing
		2	MESISI594925	Digital Twins
		2	MESISI595325	Digital simulation of ergonomics
Total	30	30		

ESILV – Course List 5th Year – OCC – Fall Semester

Fall Semester – S09

Teaching Unit (TU)	ECTS by TU	ECTS by Course	Code	Course
CORE	4	2	MESIIN594125	Data protection management
		2	MESISI594225	Product Life-cycle Management (PLM)
LANGUAGES	0	-	MESILVS-0525	FLE (French)
PROJECT	5	1	MESIEI591525	Thesis methodology
		4	MESIGP59+125	Project
		-	MESISK590225	Accompagnement SoftSkills Projet A5 / Soft Skills Year 5 Project Support
SOFT SKILLS	3	1,5	MATXSK590125	Séminaire A5 Soft Skills et Leadership / Year 5 seminar Soft Skills & Leadership
		1,5	MESISK590125	Marketing Yourself et négociation salariale / Marketing Yourself & salary negotiation
SPECIALIZATION OCC	12	2	MESIIN592625	IoT Security Architecture
		2	MESIIN595825	Risk Management
		2	MESIIN595925	Cyber Resilience & Crisis Management
		2	MESIIN596025	IoT Pentesting
		2	MESIIN596125	Industrial Security
		2	MESIIN596425	Information Security Management
TRACK COMPUTER SCIENCE	6	2	MESIIN594325	Security use cases
		2	MESIIN594425	Graph and mining
		2	MESIIN594525	Gen AI prompting and copilot
Total	30	30		

ESILV – Course List 5th Year – MMN – Fall Semester

Fall Semester – S09

Teaching Unit (TU)	ECTS by TU	ECTS by Course	Code	Course
CORE	4	2	MESIIN594125	Data protection management
		2	MESISI594225	Product Life-cycle Management (PLM)
LANGUAGES	0	-	MESILVS-0525	FLE (French)
PROJECT	5	1	MESIEI591525	Thesis methodology
		4	MESIGP59+125	Project
		-	MESISK590225	Accompagnement SoftSkills Projet A5 / Soft Skills Year 5 Project Support
SOFT SKILLS	3	1,5	MATXSK590125	Séminaire A5 Soft Skills et Leadership / Year 5 seminar Soft Skills & Leadership
		1,5	MESISK590125	Marketing Yourself et négociation salariale / Marketing Yourself & salary negotiation
SPECIALIZATION MMN	12	-	MESISI590125	MasterClass 3DEXPERIENCE
		1	MESISI591225	Composite materials
		2	MESISI591525	Flight mechanics and avionics
		2	MESISI592225	Aeroelasticity
		2	MESISI592325	Multiscale Modeling and Simulation
		2	MESISI593225	Fracture mechanics
		1	MESISI594625	Digital twins
		2	MESISI594725	Nanomaterials
TRACK ENGINEERING SCIENCES	6	-	MESISI595225	Masterclass Design of battery electric vehicle
		2	MESISI590425	Material accounting
		2	MESISI592125	Industrial Design
		2	MESISI594325	Sustainable Automobile Engineering
Total	30	30		

ESILV – Course List 5th Year – MDS – Fall Semester

Fall Semester – S09

Teaching Unit (TU)	ECTS by TU	ECTS by Course	Code	Course
CORE	4	2	MESIIN594125	Data protection management
		2	MESISI594225	Product Life-cycle Management (PLM)
LANGUAGES	0	-	MESILVS-0525	FLE (French)
PROJECT	5	1	MESIEI591525	Thesis methodology
		4	MESIGP59+125	Project
		-	MESISK590225	Accompagnement SoftSkills Projet A5 / Soft Skills Year 5 Project Support
SOFT SKILLS	3	1,5	MATXSK590125	Séminaire A5 Soft Skills et Leadership / Year 5 seminar Soft Skills & Leadership
		1,5	MESISK590125	Marketing Yourself et négociation salariale / Marketing Yourself & salary negotiation
SPECIALIZATION MDS	12	2	MESIIN591325	HMI and sensory engineering
		2	MESIIN591625	Neuroengineering
		3	MESIIN592825	Connected objects and IoT for human health
		2	MESIIN596325	Medical computer vision and image processing
		3	MESISI593525	Materials and implants
TRACK CYBER PHYSICAL HUMAN SYSTEMS	6	2	MESISI590325	Additive Manufacturing
		2	MESISI594925	Digital Twins
		2	MESISI595325	Digital simulation of ergonomics
Total	30	30		

ESILV – Course List 5th Year – IF – Fall Semester

Fall Semester – S09

Teaching Unit (TU)	ECTS by TU	ECTS by Course	Code	Course
CORE	4	2	MESIIN594125	Data protection management
		2	MESISI594225	Product Life-cycle Management (PLM)
LANGUAGES	0	-	MESILVS-0525	FLE (French)
PROJECT	5	1	MESIEI591525	Thesis methodology
		4	MESIGP59+125	Project
		-	MESISK590225	Accompagnement SoftSkills Projet A5 / Soft Skills Year 5 Project Support
SOFT SKILLS	3	1,5	MATXSK590125	Séminaire A5 Soft Skills et Leadership / Year 5 seminar Soft Skills & Leadership
		1,5	MESISK590125	Marketing Yourself et négociation salariale / Marketing Yourself & salary negotiation
SPECIALIZATION IF	12	1	MESIFI590825	Model risk
		2	MESIFI591225	Algorithmic trading
		2	MESIFI594125	FX market and models
		1		Deep pricing
		1		Network science in finance
		2	MESIFI594325	Model calibration
		2	MESIFI594425	Advanced fixed-income with Bloomberg
		1	MESIFI594525	Derivatives trading
TRACK FINANCE & ASSURANCE	6	2	MESIFI591025	Diffusion models
		2	MESIFI593225	Basel 3, credit risk and machine learning
		2	MESIFI593325	Advanced stochastic processes
Total	30	30		

ESILV – Course List 5th Year – All Programs – Spring Semester

Spring Semester – S10

Teaching Unit (TU)	ECTS by TU	ECTS by Course	Code	Course
INTERNSHIP	22	22	MESIST500125	Internship
SCIENTIFIC CAPSTONE REPORT	8	8	MESIEI500225	Mémoire
Total	30	30		