

I YEAR

Semestre	Course structure	Tuition	Subjects French	Subjects English
semestre 1	common core	training	Mathématiques : Outils élémentaires Mathématiques : Algèbre linéaire Informatique 1 Physique ondulatoire	Mathematics: Basic Tools Mathematics: Linear Algebra Information Technology 1 Wave Mechanics
		training	Mecanique 1 Electricité	Mechanics 1 - Statics of rigid bodies Electricity
		technological training	Construction mécanique Technologie automobile	Mechanical Construction Automobile Technology
		technological option	option transports & motorisation option mécanique des transports option agroalimentaire	option: Transport & Motorisation option: Mechanics in Transport option: Agro-business
		Business management and communication training	Expression et Communication 1 Anglais 1 2nde langue : espagnol, allemand, chinois, russe, italien, FLE (français) Sport 1	Expression and Communication 1 English 1 Second language: Spanish, German, Chinese, Russian, Italian, FLE (French) Sports 1
semestre 2	common core	basic scientific training	Mathématiques : Analyse réelle Mathématiques : Géométrie et analyse complexe Chimie	Mathematics: Linear Analysis Mathematics: Geometry and Complex Analysis Chemistry
		engineering scientific training	Mécanique 2 Thermodynamique	Mechanics 2 - Point Mechanics Thermodynamics
		technological training	Construction mécanique Electronique architecture des systèmes informatiques Technologie automobile Culture technologique Transports	Mechanical Construction Electronics Architecture IT systems 1 Automobile Technology Technological developments in Transport
		Business management and communication training	Anglais 2 2nde langue : espagnol, allemand, chinois, russe, italien, FLE (français) Sport 2	English 2 Second language: Spanish, German, Chinese, Russian, Italian, FLE (French) Sports 2
		Management life training	Stage	Industrial outplacement

2 YEAR

Semestre	Course structure	Tuition	Subjects French	Subjects English
semestre1	common core	basic scientific training	Mathématiques : Calcul différentiel Mathématiques : Analyse vectorielle Physique - électromagnétisme Mécanique des fluides (Fluides parfaits)	Mathematics: Differential Calculation Mathematics: Vector Analysis Physics - Electromagnetism Fluid mechanics (Perfect Fluids)
		engineering scientific training	Mécanique 3 Chimie 2 Electrotechnique	Mechanics 3 - Kinematics of solid bodies Chemistry 2 Electronics
		technological training	Construction mécanique Technologie automobile Fabrication Culture technologique Transports	Mechanical Construction Automobile Technology Manufacturing Technological developments in Transport
		Business Management & Communication training	Anglais 3 2nde langue : espagnol, allemand, chinois, russe, italien, FLE (français) Sport 3	English 3 Second language: Spanish, German, Chinese, Russian, Italian, FLE (French) Sports 3
semestre2	common core	basic scientific training	Mathématiques :séries et transformées Informatique 2	Mathematics: Series and Transformations Information Technology 2
		engineering scientific training	Architecture des systèmes informatiques 2 Mécanique 4	Architecture of IT systems 2 Mechanics 4 - Dynamics of solid bodies
		Business Management & Communication training	Anglais 4 2nde langue : espagnol, allemand, chinois, russe, italien, FLE (français) Expression et Communication 2 Sport 4	English 4 Second language: Spanish, German, Chinese, Russian, Italian, FLE (French) Expression and Communication 2 Sports 4
		Formation spécifique du site en CP	Systèmes automatisés de production Matériaux métalliques Résistance des matériaux Projet interdisciplinaire Avant projet 3A Culture technologique Transports et visites d_entreprises	Automated production Metallic Materials Strength of materials Interdisciplinary Project 3rd-year pre-project Technological developments in Transport

3 YEAR

Semestre	Course structure	Tuition	Subjects French	Subjects English
semestre1	common core	basic scientific training	Mathématiques: Probabilités et Statistiques Mécanique des fluides (fluides réels) Thermique : transferts de chaleur	Mathematics: Probability and Statistics Fluid Mechanics (real fluids) Thermodynamics: Heat Transfer
		engineering scientific training	Traitement du signal	Signal Analysis
		technological training	Construction mécanique Moteurs 1	Mechanical Construction Heat Engines 1
		Business Management & Communication training	Anglais 5 2nde langue : espagnol, allemand, chinois, russe, italien, FLE (français) Sport 5	English 5 Second language: Spanish, German, Chinese, Russian, Italian, FLE (French) Sports 5
	common core Concept Car	Management life training	Gestion de projet Projet 1	Project Management Project 1
	common core EPEE	engineering scientific training	Fabrication Résistance des matériaux Aero-Thermo chimie - Combustion/polluants Moteurs électriques	Production Strength of Materials Aero-Thermal Chemistry - Combustion/Pollutants Electric Motors
semestre2	common core	basic scientific training	Contrôle Commande	Remote Control
		engineering scientific training		
		technological training	Production Culture technologique Transports	Production Technological developments in Transport
		Business Management & Communication training	Développement personnel et expression theatrale Anglais 6 2nde langue : espagnol, allemand, chinois, russe, italien, FLE (français) Droit Ressources humaines Sport 6	Personal Development and Theatrical Expression English 6 Second language: Spanish, German, Chinese, Russian, Italian, FLE (French) Law Human Resources Sports 6
	common core Concept car	Management life training	Projet 2	Project 2
		engineering scientific training	Vibration Matériaux non-métalliques Méthodes numériques Mécanique des milieux continus	Vibrational Analysis Non-metallic Materials Numerical Methods Continuum mechanics
	common core EPEE	engineering scientific training	électronique de puissance Propulsion/machines thermiques et turbomachines Méthodes numériques	Electronic Power Control Propulsion/Heat Engines and Turbo-Machines Numerical Methods
		technological training	Moteurs 2 Informatique avancée	Heat Engines 2 Advanced IT Systems

4 YEAR

Semestre	Course structure	Tuition	Subjects French	Subjects English
semestre1	common core	management life training	Stage en entreprise	Industrial Outplacement
semestre2	common core	basic scientific training	Aérodynamique subsonique Projet d'initiation à la recherche	Subsonic Aerodynamics Introduction to Research
		engineering scientific training	Systèmes d'acquisition de signaux Mesure & modélisation de GMP	Data Recording Systems Powertrain Modeling and Control
		technological training	Qualité Gestion de production Culture technologique Transports	Quality Assurance Production Management Technological developments in Transport
		business management & communication training	Anglais 2nde langue : espagnol, allemand, chinois, russe, italien, FLE (français) Gestion Management GRH Projet professionnel Sport 7	English Second language: Spanish, German, Chinese, Russian, Italian, FLE (French) Management Human Resource Management Career Project Sports 7
	common core for the department Concept Car	basic scientific training	Acoustique	Acoustics
		engineering scientific training	Reverse Engineering Analyse de la valeur pour la (re)conception Dynamique des structures Fiabilité des systèmes Tribologie Calcul de structures	Reverse Engineering Value analysis for (re)design Dynamics of Structures System Reliability Tribology Design of Structures
		technological training	CND et Métrologie Comportement des matériaux Dynamique du véhicule	NDC and Metrology Behavior of Materials Dynamics of Vehicles
	common core for the department EPEE	basic scientific training	Dimensionnement d'échangeurs thermiques Informatique temps réel Aérodynamique supersonique	Design of Heat Exchangers Real-time IT Processing Supersonic Aerodynamics
		engineering scientific training	Bilans énergétiques des Véhicules Moteurs thermiques approfondissements Systèmes électroniques Transmission électrique et motorisations hybrides Simulation GMP (Fluent, GT Power, ...)	Energy Requirements of Vehicles Advanced Heat Engines Electronic Systems Electric and Hybrid Power Systems in Vehicles Powertrain Simulation (Fluent, GT Power,...)

5 YEAR

Semestre	Course structure	Tuition	Subjects French	Subjects English
semestre1	common core	technological training	Mathématiques: Plans d_expériences Choix des matériaux en conception Maintenance	Mathematics: Experimental Planning and Analysis Choice of Design Materials Maintenance
		business management & communication training	Initiation à la création d'entreprises Marketing et gestion commerciale Communication Droit commercial et propriété intellectuelle Entretien embauche Anglais 2nde langue : espagnol, allemand, chinois, russe, italien, FLE (français)	Introduction to entrepreneurship Marketing and sales management Communication Commercial law and intellectual property Recruiting interview English Second language: Spanish, German, Chinese, Russian, Italian, FLE (French)
	Transportation vibration & acoustics	technological training	Sources acoustiques et vibratoires des véhicules Méthodes expérimentales Approches numériques Sources aéroracoustiques Matériaux absorbants et amortissants Confort véhicule et environnement "Aérodynamique couplage fluide-structure" Dynamique pour l'aéronautique	Acoustic and Vibration Sources in Vehicles Experimental Methods Numerical Approaches Aeroacoustic Sources Absorbant Material and Damping Vehicle Comfort and Environment Aerodynamic Interactions between Fluids and Structures Dynamics for Aerospace Applications
		engineer's project	Projet de fin d'études	Final-year study project
	suspension systems	technological training		
	Car body	technological training	Procédés et Matériaux innovants Rupture et Fatigue Impact-Crash Assemblages structuraux Dimensionnement Chassis et Carosseries Eco-conception : Allègement, recyclabilité et maintenabilité Méthodes d'optimisation	Technological Training Innovative Materials and Processes Fracture failure and Fatigue Impact-Crash Structural Joining Techniques Chassis and Bodywork Design Eco-conception: Weight Reduction, Recyclability and Maintainability Optimisation methods
		introduction to research	Projet d_initiation à la recherche	Introduction to Research
	Design & manufacturing	technological training	Design pour l_automobile Outils de progrès continu - Lean Management Supply Chain Techniques de fabrication avancée Robotique & vision Analyse, conception & simulation des systèmes industriels Cycle de vie produit et ingénierie simultanée (ENSAM)	Automobile Design Tools for continuous improvement- Lean Management Supply Chain Technically Advanced Manufacturing Robotics & Vision Design, Analysis and Simulation of Industrial Systems Product Lifecycle and Concurrent Engineering
		introduction to research	Projet incluant design, prototypage & fabrication de produits industriels	Project covering design, prototyping & manufacturing of industrial products
	Advanced powertrain	technological training	Récupération et Stockage d_énergie et puissance Composants Moteurs/Turbomachines Groupe moto propulseur innovant et Combustibles alternatifs	Storage and Recovery of energy and power Engine Components / Turbo-machinery Innovative Powertrains and Alternative Fuels

			Modélisation moteur & optimisation de consommation Dépollution des moteurs thermiques OBD, contrôle et diagnostic	Heat Engine Modeling & Fuel Consumption Optimisation Depollution of IC Engines OBD, Control and Diagnostics
		introduction to research	Projet	Project
	Intelligent vehicle	technological training	OBD, contrôle et diagnostic Système Embarqué temps réel Interaction conducteur / véhicule en conditions anormales Réseaux véhicule&infrastructure Système à Image pour le Transport Systèmes coopératifs	OBD, Control and Diagnostics Real-time Embedded Systems Interaction of driver / vehicle in abnormal conditions Electric Networks and Infrastructure in Vehicles Imaging Systems for Transport Applications Resource-sharing Instrumentation Systems
		introduction to research	Projet	Project
semestre2	common core	management life training	Stage en entreprise	Final-year Industrial Outplacement

