

Artificial intelligence and cybersecurity programme Course content - 3rd year of the engineering cycle

Scientific courses

Title	Hours	ECTS
UE - Advanced science and technology Semester 1 - Period 1	90	9
Penetration testing	30	
Natural language processing	30	
AI and Security Cloud Services	30	

Title	Hours	ECTS
UE - Advanced science and technology Semester 1 - Period 2	90	9
Perception and AI	30	
DevSecOps	30	
Deep-Learning and its applications	30	

Open science and technology

Title	Hours	ECTS
UE - Science and technology Open Semester 1 - Periods 1 and 2	60	5
Period 1 (One 30-hour course of your choice)		
Ingénierie Systèmes pour l'Embarqué : application au cycle de développement automobile	30	
HLS pour l'IA/Vidéo	30	
Systèmes de connectivité terrestre et satellitaire : 5G - 6G - Newspace	30	
Réseaux de chaleur, gestion de l'Eau et des Déchets	30	
Lab On a Chip	30	
IoT	30	
Chaire Devoteam - Audit de sécurité : les bases	30	
Chaire Capgemini - Test driven development et agilité	30	
Chaire IBM - AI beyond performance metric	30	
Period 2 (One 30-hour course of your choice)		
Systèmes embarqués connectés sous Android	30	
MEMS sensors	30	
Traitement des eaux usées et récupération d'énergie fatale	30	
e-health data : web services and information systems	30	
Communication scientifique et travail en équipe	30	
Distributed Control Systems	30	
Attaques Matérielles	30	
Forensic Avancé	30	
Développement web full stack	30	

Management and human sciences

Title	Hours	ECTS
UE - Management and human sciences Semester 1 - Periods 1 and 2	90	5
Period 1 (one 30-hour course of your choice)		
Gestion des ressources humaines	30	
Corporate profiling (seulement pour les internationaux)	30	
Management d'équipe et leadership	30	
Veille technologique	30	
Data science et analyse des réseaux sociaux	30	
Economie de la mondialisation	30	
Entrepreneuriat et Business plan	30	
Ingénierie financière et finance de marché	30	
Ethique de l'ingénieur	30	
Progressive preparation of personal and professional (Compulsory course)	15	
Period 2 (One 30-hour course of your choice)		
Simulation de gestion	30	
Management simulation week	30	
Progressive preparation of personal and professional (Compulsory course)	15	

Modern languages

Title	Hours	ECTS
UE - Compulsory foreign languages (LV1) Semester 1 - Periods 1 and 2	18	2
Pre-Professional Courses (period 1)		
Pre-Professional Courses (period 2)		

Title	Hours	ECTS
UE - French language for foreign students Semester 1 - Periods 1 and 2	24	2
French		

Final year internship

Title	Hours	ECTS
UE - Compulsory end-of-studies internship Semester 2		30
Internship (6 months)		

*Non-contractual document
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