

UNISA -> ENSICAEN			ECTS	Computer Engineering	Choice	Affine	Other	Thesis / Internship
S1	IT622700001	two between (*) Programming Techniques (Tecniche Di Programmazione)	9	9				
	IT622700002	two between (*) Software Engineering (Ingegneria Del Software)	9	9				
	IT622700003	Advanced Automatic Control (Complementi Di Controlli Automatici)	9	9				
S2	IT622700026	Embedded Systems (Sistemi Embedded)	6	6				
	IT622700004	two between (*) Computer Architectures (Sistemi Di Elaborazione)	9	9				
	One between	IT622700005 IT622700013	Digital Signal Processing (Elaborazione Numerica Dei Segnali) Information Coding and Compression (Codifica E Compressione Dell'informazione)	9		9		
TOTAL UNISA			42	33	0	9	0	0

S3	FR-2L1AA1	English (Anglais)						
	FR-2L1AA2	French as a foreign language(Francais langue étrangère)						
	FR-2L1AA4	Project management(Gestion de projet)						
	FR-2L1AA3	Preparation for recruitment(Préparation au recrutement)						
	FR-2L1AA5	Conferences-Debate(Conférences - Débat IE (vulnérabilité, sécurité))						
	FR-2I1AB1	Math for engineers(Mathématiques pour l'informatique)						
	FR-2I1AB2	Graphs and ordonancing(Graphes et ordonnancement)	6			6		
	FR-2I1AB3	Cryptography(Cryptographie)						
	FR-2I1AC1	Java Technologies (advanced)(Technologies Java)						
	FR-2I1AC2	C++ Language(Programmation en C++)	6	6				
	FR-2I1AC3	Software engineering and design patterns(Génie logiciel et patrons de conception)						
	FR-2I1AD1	Processors for signal analysis(Processeurs pour le Signal)						
FR-2I1AD2	XML technologies(Technologies XML)	6	6					
FR-2I1AE1	Artificial intelligence(Intelligence Artificielle)							
FR-2I1AE2	Data mining / machine learning(Fouille de données / Apprentissage)							
FR-2I1AE3	Ingenuity of complex systems(Ingénierie des systèmes complexes)	6	6					
FR-2I1AE4	Project (Projet)							

S4	FR-2L2AA2	English (Anglais)						
	FR-2L2AA2	French as a foreign language(Francais langue étrangère)						
	FR-2L2AA9	Conferences-Debate(Conférences - Débat IE (typologie des acteurs, responsabilité citoyenne))	4		4			
	FR-2I2AB1	Design of graphical interfaces(Conception d'interfaces graphiques)						
	FR-2I2AB2	Compilation and graph theory(Compilation et théorie des langages)						
	FR-2I2AB3	Data bases (moved)(Base de données)	6			6		
	FR-2I2AB4	Project (continuing)(Projet (suite))						
	FR-2I2AC1	Architecture of communication systems(Architecture des systèmes de communication)						
	FR-2I2AC2	Objects in distributed systems: CORBA and EJB(Systèmes répartis à objets: CORBA et EJB)						
	FR-2I2AC3	Parallel architectures(Architectures parallèles)	5	5				
	FR-2I2AC4	Web 2.0(Web 2.0)						
	FR-2I2L1A	Internship (3 month)(Stage technicien)	10					10
Curriculum Image & Multimédia	FR-2I2AD1	Initiation to image processing(Curriculum Image & Multimédia)						
	FR-2I2AD2	Tools for multimedia applications(Outils pour le multimédia)	5	5				
	FR-2I2AD3	Basis of image synthesis(Bases de la synthèse d'images)						
Curriculum Monétique et Sécurité Informatique	FR-2I2AE1	Basics of monetics(Curriculum Monétique et Sécurité Informatique)						
	FR-2I2AE2	Norms in monetics(Normes en monétique (1))	5	5				
	FR-2I2AE3	Component of monetic(Composants de la monétique (1))						
	FR-2I2AE4	Applied cryptography(Cryptographie appliquée)						

S5	FR-3IAP1	Project management(Management de projet)						
	FR-3IAP2	Intensive project(Projet intensif)	5					5
	FR-3IAP3	Third year project(Projet de 3ème année)						
	FR-3LMC1	English (Anglais)						
	FR-3LMC2	Labor laws(Droit du travail)						
	FR-3LMC3	Management(Management)						
	FR-3LMC4	Juridic aspects of computer science (Aspects juridiques de l'IE)						
	FR-3LMC5	Intellectual property(Propriété intellectuelle)						
	FR-3LMC6	Business intelligence(Intelligence Economique)						
	FR-3LMC7	Business intelligence R&D (surveillance, standardization, patents, strategic positioning choices)(Intelligence Economique R&D)	5				5	
	One among	FR-3LMC8	Dutch project(One among) Spanish project(Projet Espagnol) TOEIC (for students having not already it)(TOEIC (élève n'ayant pas le TOEIC)) Work in a multilingual/cultural team (Travailler en équipe multilingue culturelle)					
	One among	FR-3LMC9	Create your compagny(Créateur d'entreprise, Oser entreprendre) Norms, influence tools(Normalisation, outil d'influence) quality norms(Qualité Normes)					

S5	FR-3IAB1	Real time systems(Systèmes Temps Réel)							
	FR-3IAB3	Information transmission, compression, coding(Transmission d'information : compression, codage)							
	FR-3IAB2	Semantic Web assisted access to information(Web sémantique et accès assisté à l'information)	5	5					
	FR-3IAC1	Security technologies(Technologies de sécurité)							
	FR-3IAC2	IP technologies(Technologies des réseaux IP)	5	5					
	FR-3IAC3	Models and application of Web(Modèles et applications du Web)							
	FR-3IAC4	J2EE technologies(Technologies J2EE)							
	Curriculum Image & Multimédia	FR-3IAD1	Segmentation and video analysis(Curriculum Image & Multimédia)						
		FR-3IAD2	Image processing(Traitement d'images (commun Image- Imalang))						
		FR-3IAD3	Multimedia (will be moved)(Multimédia (commun Image-Imalang))	5	5				
		FR-3IAD4	Image synthesis and virtual reality(Synthèse d'images et réalité virtuelle (commun Image-Imalang))						
	Curriculum Monétique et Sécurité Informatique	FR-3IAE1	Pattern Recognition(Reconnaissance de formes (commun Image- Imalang))						
FR-3IAE2		machine learning(Apprentissage automatique (commun Image- Imalang))	5	5					
FR-3IAE3		Multimedia data mining(Recherche d'informations et multimédia (commun Image-Imalang))							
FR-3IAE4		Intensive project(Projets intensifs)							
Curriculum Monétique et Sécurité Informatique	FR-3IAF1	Organisation and actors of monetic(Curriculum Monétique et Sécurité Informatique)							
	FR-3IAF2	Norms in monetic(Normes en monétique)							
	FR-3IAF3	Architectures in monetic(Architectures monétiques)							
	FR-3IAF4	Component of monetic(Composants de la monétique)	5	5					
	FR-3IAF5	Monetic flows(Flux monétiques)							
	FR-3IAF6	Risk management in monetic(Gestion du risque monétique)							
	FR-3IAF7	New uses(Nouveaux usages)							
Curriculum Monétique et Sécurité Informatique	FR-3IAG1	Security of embeded systems(Sécurité des systèmes embarqués)							
	FR-3IAG2	Numerical identity(Identité numérique)							
	FR-3IAG3	Trusted architectures(Architectures de confiance)	5	5					
	FR-3IAG4	system security(Sécurité système)							
TOTAL ENSICAEN			90	48	10	12	5	15	

S6	Thesis/Internship (NOTE: 700 equivalent hours) in Italy		30					30
TOTAL UNISA			30	0	0	0	0	30

TOTAL	162	81	10	21	5	45	
	Computer Engineering	Choice	Affine	Other	Thesis / Internship		