

Studies Plan

Informatique 2023-24

Block A

Courses				Bachelor 3	Bachelor 4	Bachelor 5	Bachelor 6	Exam Session	Exam	Credit
Language	Code	Section	Teacher	l e p	l e p	l e p	l e p			
E	Algorithms I CS-250	IN	Chiesa Svensson		4h 2h			Sum	Written	8
F	Analysis III MATH-203(b)	MA	Strütt	2h 2h				Win	Written	4
E	Parallelism and concurrency CS-206	IN	Kashyap Kuncak		1h 1h 2h			Sum	During the semester	4
E	Software construction CS-214	IN	Kuncak Odersky Pit-Claudel	3h 2h 3h				Win	Written	8

Block B

Courses				Bachelor 3	Bachelor 4	Bachelor 5	Bachelor 6	Exam Session	Exam	Credit
Language	Code	Section	Teacher	l e p	l e p	l e p	l e p			
E	Computer architecture CS-200	IN	Khun Jush	4h 4h				Win	Written	8
E	Computer networks COM-208	SC	Argyrazi	2h 2h				Win	Written	5
E	Computer systems CS-202	IN	Argyrazi Bugnion Chappelier		4h 4h			Sum	Written	8
E	Probability and statistics MATH-232	MA	Berthier	4h 2h				Win	Written	6

Block C

Courses				Bachelor 3	Bachelor 4	Bachelor 5	Bachelor 6	Exam Session	Exam	Credit
Language	Code	Section	Teacher	l e p	l e p	l e p	l e p			
E	Computer security and privacy COM-301	SC	González Troncoso			2h 2h		Win	Written	4
E	Data-intensive systems CS-300	IN	Ailamaki Kashyap				2h 1h 2h	Sum	Written	6
E	Theory of computation CS-251	IN	Göös				2h 2h	Sum	Written	6

Group "Optional courses"

Courses				Bachelor 3	Bachelor 4	Bachelor 5	Bachelor 6	Exam Session	Exam	Credit
Language	Code	Section	Teacher	l e p	l e p	l e p	l e p			
E	Algebra MATH-310	MA	Lachowska	2h 2h				Win	Written	4
F	Analysis IV MATH-207(d)	MA	Basterrechea	2h 2h				Sum	Written	4
F	Artificial intelligence CS-330	IN	Faltings				2h 2h	Sum	During the semester	4
E	Communications project COM-304	SC	Al Hassanieh Roshan Zamir				2h 10h	Sum	During the semester	8
E	Computer graphics CS-341	IN	Pauly				2h 1h 2h	Sum	Written	6

E	Computer language processing										
	CS-320	IN	Racordon			2h 2h 2h	Sum	During the	6	semester	
Electromagnetics I : Transmission lines and waves											
F	EE-200	EL	Fleury			2h 1h	Win	Written	3		
Electromagnetics II : field computation											
F	EE-201	EL	Fleury			2h 1h	Sum	Written	3		
Electronics I											
F	EE-202(b)	EL	Sallese Zysman			2h 1h	Win	During the	4	semester	
Electronics II											
F	EE-203(b)	EL	Sallese Zysman			2h 2h	Win	During the	4	semester	
Electronics III											
F	EE-381	EL				2h 1h	Sum	During the	3	semester	
General chemistry											
F	CH-160(b)	CGC	Terrettaz			2h 1h	Win	Written	3		
Human computer interaction											
F	CS-213	IN	Egger			2h 2h	Sum	Written	5		
Internet analytics											
E	COM-308	SC	Grossglauser			2h 1h 2h	Sum	Written	6		
Introduction to machine learning											
E	CS-233	IN	Fua Salzmann			2h 2h 2h	Sum	Written	6		
Introduction to multiprocessor architecture											
E	CS-307	IN	Falsafi			2h 1h	Win	During the	4	semester	
Introduction to operating systems											
E	CS-323	IN	Kashyap			2h 1h 2h	Win	Written	5		
Introduction to quantum computation											
E	CS-308	IN	Lévêque Urbanke			3h 1h	Sum	Written	5		
Introduction to quantum information processing											
E	COM-309	SC	Macris			3h 1h	Win	Written	5		
Numerical methods for visual computing and ML											
E	CS-328	IN	Jakob			2h 2h	Win	Written	4		
Parallelism and concurrency in software											
E	CS-302	IN				3h 3h	Sum	During the	6	semester	
Principles of digital communications											
E	COM-302	SC	Telatar			4h 2h	Sum	Written	6		
Projet de recherche optionnel en Informatique I											
F	CS-304	IN	Profs divers			8h	Sum Win	During the	8	semester	
Signal processing											
E	COM-202	SC	Prandoni Shkel			4h 2h 2h	Win	Written	8		
Signal processing for communications											
E	COM-303	SC	Prandoni			4h 2h	Sum	Written	6		
Stochastic models in communication											
F	COM-300	SC	Thiran			4h 2h	Win	Written	6		
Technologies for democratic society											
E	CS-234	IN	Estrada Galiñanes			2h 1h 2h	Win	Written	5		

Group "Physics/Bio"

Courses			Bachelor 3	Bachelor 4	Bachelor 5	Bachelor 6	Exam Session	Exam	Credit	
Language	Code	Section	Teacher	l e p	l e p	l e p	l e p			
Analytical mechanics (for SPH)										
F	PHYS-202	PH	De Los Rios	3h 2h				Win	Written	5
General physics: electromagnetism										
E	PHYS-114	PH	Shchutaska	2h 2h				Win	Written	4
Introduction to life sciences (for IC)										
F	BIO-109	SV	Zufferey		4h 2h			Sum	Written	6
Quantum mechanics I										
E	PHYS-207	PH	Banerjee		3h 2h			Sum	Written	5

Group I "Project"

Courses			Bachelor 3	Bachelor 4	Bachelor 5	Bachelor 6	Exam Session	Exam	Credit
Language Code	Section	Teacher	l e p	l e p	l e p	l e p			
E	Making intelligent things CS-358 IN	Koch					8h	Sum	During the 8 semester
E	The software enterprise - from ideas to products CS-311 IN	Bugnion Candea				2h 1h 10h	Sum	During the 8 semester	

Transverse block HSS

Courses			Exam Session	Exam	Credit
Language Code	Section	Teacher			
F	SHS : Bachelor cycle BA6 SHS				2
F	HSS : Bachelor cycle BA5 SHS				2
F	HSS : Bachelor cycle BA4 SHS				2
F	HSS : Bachelor cycle BA3 SHS				2