

TABLE OF LEARNING MODULES AND WORKING HOURS

Presented below are the 4 years courses and learning hours. The duration of each module is presented in two parts, both Physical attendance and tutoring hours. The individual working hours to learn the course are excluded.

Remark: For the CIM and the project, autonomous work is included in the student schedule.
Hours of personal or individual work are not included here.

Year 1:					
Autonomous work is in class. It does not include personal work					
30 ECTS			30 ECTS		
Name of Module	Physical Attendance Hours	Autonomous work	Name of Module	Physical Attendance Hours	Autonomous work
Basic Tools in Mathematics	60		Linear Algebra	60	
Analysis 1	60		Analysis 2	60	
Algorithmic & Programming 1	60		Mechanics	30	
			Probability 2	30	
Electricity	30		Algorithmic and programming 2	60	
Probability 1	30				
Micro Economics	30		Principal of Finance	30	
Principal of Accounting	30		Macro Economics	30	
DCIM*	15	15	DCIM*	15	15
Adobe	15	15	Project	30	60
ICP (afternoon)	22		ICP (afternoon)	22	
Enlightenment sessions	20		Enlightenment sessions	20	
Humanities and social sciences	15		Humanities and social sciences	15	
Sociology			Ethnology		
Project	21	60			
			Internship	4 weeks	
*DCIM: Design Contemporary Module Issue					

Year 2					
Autonomous work is in class. It does not include personal work					
30 ECTS			30 ECTS		
Name of Module	Physical Attendance Hours	Autonomous work	Name of Module	Physical Attendance Hours	Autonomous work
Bilinear Algebra	45		Object Oriented & Java Programming	60	
Dynamic Web Programming	30				
Multivariable Calculus	70		Statistics	40	
			Data Analysis	50	
Series	60		Computer Networks	30	
			Operating Systems	30	
Relational Database	60		Electromagnetism	60	
Project Management	15	15	Financial Analysis	30	
DCIM*	15	15	DCIM*	15	15
Project (2)	30	60	Project (2)	30	60
Humanities and social science: Anthropologie	15		Humanities and social science: Semiology	15	
ICP (afternoon)	22	0	ICP (afternoon)	22	0
Enlightenment sessions	30	0	Enlightenment sessions	30	0
			Internship	8 weeks	
*DCIM: Design Contemporary Issue Module					

Year 3					
Autonomous work is in class. It does not include personal work					
30 ECTS			30 ECTS		
Name of Module	Physical Attendance Hours	Autonomous work	Name of Module	Physical Attendance Hours	Autonomous work
Machine Learning/Deep Learning	30	30	Heuristics, Artificial Intelligence, Machine and Deep learning	10	50
Time series analytics and mining: stream analytics & forecasting model	15	15	Data mining	10	50
Text Mining	15	15	Data and critical thinking	10	50
Social Network Analysis	15	15			
Logic Programming	30				
Fundamentals of Data Mining	15	15	DCIM*	15	15
Introduction to Information theory	30		Project	30	90
Project	30	90			
ICP (afternoon)	22				
Humanities and social science: Digital sociology	15		Humanities and social science: Ecology	15	
Enlightenment sessions	30		Enlightenment sessions	10	
DCIM*	15	15 autonomous work	Internship	16 weeks	
Intermediate statistics	15	15			
Mobile programming	15	15			
*DCIM: Design Contemporary Issue Module					

Year 4 (Opening September 2021)					
Autonomous work is in class. It does not include personal work					
30 ECTS			30 ECTS (20 ECTS+ 10 ECTS)		
Name of Module	Physical Attendance Hours	Autonomous work	Name of Module	Physical Attendance Hours	Autonomous work
Cloud Computing	30		Constraint programming & Optimization (including linear, Multi objectives opt.	60	
NoSQL Database	20	10			
Language Theory	30		Game theory	30	
Data Integration (Data Analytics included)	30		Data Governance (Security, Privacy, Quality...)	30	
Spatio-temporal Data	30				
Business Intelligence	30		Big Data	40	20
Web Semantic	20	10	DCIM*	15	15
Parallel and distributed processing	20	10	Project	30	90
Complexity, Decidability and Graph Theory	60		Internship	16 or 24 weeks	
DCIM*	15	15			
Project	30	90			
ICP (afternoon)	22	0	ICP (afternoon)	13	0
Enlightenment sessions	30	0	Enlightenment sessions	18	0
*DCIM: Design Contemporary Issue Module					