

Corso di Laurea Magistrale in Computer Science

a.a. 2021-2022

(Corso di Studi Internazionale erogato in lingua inglese)

Study Plan

FIRST YEAR

Course	Didactic Activities	Credits	Assessment					
	S. S. D.		Tip*	Tot	Less	Ex/Lab	Prog	
<i>I semester</i>								
Database Systems		ING-INF/05	b	9	7	2		Exam
Numerical Methods for Computer Science		MAT/08	c	9	7	2		Exam
Formal Methods in Computer Science		INF/01	b	6	4	2		Exam
Information Theory		INF/01	c	6	4	2		Exam
Total Credits				30				

<i>II semester</i>								
CURRICULUM: Artificial Intelligence								
Fundamentals of Artificial Intelligence		INF/01	b	9	7	1	1	Exam
Machine Learning		ING-INF/05	b	9	7	2		Exam
Natural Language Processing		ING-INF/05	b	6	4	2		Exam
Computer Vision		INF/01	b	6	4	2		Exam
Total Credits				30				

<i>II semester</i>								
CURRICULUM: Security Engineering								
Secure Software Engineering		ING-INF/05	b	9	7	2		Exam
Urban Security		ING-INF/05	b	6	4	2		Exam
IoT Security		INF/01	b	6	4	2		Exam
Human-Computer Interaction for Cyber-Security		INF/01	b	9	6	2	1	Exam
Total Credits				30				

Second Year

CURRICULUM: Artificial Intelligence

Course	Didactic Activities	Credits	Assessment					
	S. S. D.		Tip*	Tot	Less	Ex/Lab	Prog	
<i>I semester</i>								
Big Data		ING-INF/05	b	6	4	2		Exam
Software Engineering for AI-Enabled Systems		INF/01	b	6	4	2		Exam

Semantics in Intelligent Information Access	INF/01	b	6	4	1	1	Exam
Students' choice		d	12				Exam
Total Credits			30				
II semester							
Course	S. S. D.	Tip*	Tot. Credits	Assessment			
Further Didactic Activities (Internships, seminars)		f	7	Attendance verification			
Advanced Scientific English	L-LIN/12	f	3	Pass/Fail Exam			
Final Assessment		e	20	Final Exam			
Total Credits			30				

CURRICULUM: Security Engineering

Course	Didactic Activities	Credits	Assessment				
			S. S. D.	Tip*	Tot	Less	Ex/Lab
I semester							
Project Management for Security	ING-INF/05	b	6	4	2		Exam
Serious Games for Cyber-Security	INF/01	b	6	5		1	Exam
Artificial Intelligence for Security	ING-INF/05	b	6	4	1	1	Exam
Students' choice		d	12				Exam
Total Credits			30				
II semester							
Course	S. S. D.	Tip*	Tot. Credits	Assessment			
Further Didactic Activities (Internships, seminars)		f	7	Attendance verification			
Advanced Scientific English	L-LIN/12	f	3	Pass/Fail Exam			
Final Assessment		e	20	Final Exam			
Total Credits			30				

Further didactic activities to be activated:

Course	Didactic Activities	Credits	Assessment				
			S. S. D.	Tip*	Tot	Less	Ex/Lab
Social Computing	INF/01	d	6	4	2		Exam
Cyber-Security Capstone Project	ING-INF/05	d	6	3	1	2	Exam
Cloud Computing	INF/01	d	6	3	1	2	Exam
Interaction with Intelligent Systems	INF/01	d	6	4	2		Exam
Knowledge Representation and Reasoning	INF/01	d	6	5		1	Exam
Social Robotics	INF/01	d	6	4	2		Exam
Quantum Computing	INF/01	d	6	4	1	1	Exam
Ethics, Privacy and Security	INF/01	d	6	6			Exam
Metodologie e Tecnologie Didattiche per l'Informatica	INF/01	d	6	4	1	1	Exam

Semantic Technologies and Knowledge Graphs	INF/01	d	6	5		1	Exam
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(*) Typology: b=characterizing courses, c=integrative courses, d=students' choice, e=final exam, f=internships and English language.

STUDY PLAN FOR PART-TIME STUDENTS

FIRST YEAR

First semester: Both Curriculum

Course	Didactic Activities	Credits	Assessment				
			S. S. D.	Tip*	Tot	Less	Ex/Lab
Numerical Methods for Computer Science		MAT/08	c	9	7	2	Exam
Information Theory		INF/01	c	6	4	2	Exam
Total Credits				15			

Second semester: Curriculum Artificial Intelligence

Course	Didactic Activities	Credits	Assessment					
			S. S. D.	Tip*	Tot	Less	Ex/Lab	Prog
Fundamentals of Artificial Intelligence		INF/01	b	9	7	1	1	Exam
Natural Language Processing		ING-INF/05	b	6	4	2	Exam	
Total Credits				15				

Second semester: Curriculum Security Engineering

Course	Didactic Activities	Credits	Assessment					
			S. S. D.	Tip*	Tot	Less	Ex/Lab	Prog
Secure Software Engineering		ING-INF/05	b	9	7	2	Exam	
Urban Security		ING-INF/05	b	6	4	1	1	Exam
Total Credits				15				

SECOND YEAR

First semester: Both Curriculum

Course	Didactic Activities	Credits	Assessment				
			S. S. D.	Tip*	Tot	Less	Ex/Lab
Data Base Systems		ING-INF/05	b	9	7	2	Exam
Formal Methods in Computer Science		INF/01	b	6	4	2	Exam
Total Credits				15			

Second semester: Curriculum Artificial Intelligence

Course	Didactic Activities	Credits	Assessment				
			S. S. D.	Tip*	Tot	Less	Ex/Lab

Machine Learning	ING-INF/05	b	9	7	2		Exam
Computer Vision	INF/01	b	6	4	2		Exam
Total Credits			15				

Second semester: Curriculum Security Engineering

<i>Course</i>	<i>Didactic Activities</i>	<i>Credits</i>	<i>Assessment</i>				
			<i>S. S. D.</i>	<i>Tip*</i>	<i>Tot</i>	<i>Less</i>	<i>Ex/Lab</i>
Human-Computer Interaction for Cyber Security		INF/01	b	9	7	2	Exam
IoT Security		INF/01	b	6	4	2	Exam
Total Credits				15			

THIRD YEAR

First semester: Curriculum Artificial Intelligence

<i>Course</i>	<i>Didactic Activities</i>	<i>Credits</i>	<i>Assessment</i>				
			<i>S. S. D.</i>	<i>Tip*</i>	<i>Tot</i>	<i>Less</i>	<i>Ex/Lab</i>
Big Data		ING-INF/05	b	6	4	2	Exam
Software Engineering for AI-Enabled Systems		INF/01	b	6	4	2	Exam
Semantics in Intelligent Information Access		INF/01	b	6	4	2	Exam
Students' choice			d	12			Exam
Total Credits				30			

First semester: Curriculum Security Engineering

<i>Course</i>	<i>Didactic Activities</i>	<i>Credits</i>	<i>Assessment</i>				
			<i>S. S. D.</i>	<i>Tip*</i>	<i>Tot</i>	<i>Less</i>	<i>Ex/Lab</i>
Project Management for Security		ING-INF/05	b	6	4	2	Exam
Serious Games for Cyber-Security		INF/01	b	6	5	1	Exam
Artificial Intelligence for Security		ING-INF/05	b	6	4	1	Exam
Students' choice			d	12			Exam
Total Credits				30			

FOURTH YEAR

Both curriculum

<i>Course</i>	<i>S. S. D.</i>	<i>Tip*</i>	<i>Tot. Credits</i>	<i>Assessment</i>
Further Didactic Activities (Internships, seminars)		f	7	Attendance verification
Advanced Scientific English	L-LIN/12	f	3	Pass/Fail Exam
Final Assessment		e	20	Final Exam
Total Credits			30	

Further didactic activities to be activated:

<i>Course</i>	<i>Didactic Activities</i>	<i>Credits</i>	<i>Assessment</i>					
			<i>S. S. D.</i>	<i>Tip*</i>	<i>Tot</i>	<i>Less</i>	<i>Ex/Lab</i>	
Social Computing		INF/01	d	6	4	2		Exam
Cyber-Security Capstone Project		ING-INF/05	d	6	3	1	2	Exam
Cloud Computing		INF/01	d	6	3	1	2	Exam
Interaction with Intelligent Systems		INF/01	d	6	4	2		Exam
Knowledge Representation and Reasoning		INF/01	d	6	5		1	Exam
Social Robotics		INF/01	d	6	4	2		Exam
Quantum Computing		INF/01	d	6	4	1	1	Exam
Ethics, Privacy and Security		INF/01	d	6	6			Exam
Metodologie e Tecnologie Didattiche per l'Informatica		INF/01	d	6	4	1	1	Exam
Semantic Technologies and Knowledge Graphs		INF/01	d	6	5		1	Exam

(*) Typology: b=characterizing courses, c=integrative courses, d=students' choice, e=final exam, f=internships and English language.