

Bachelor in: Computer Science

Speciality: Computer Systems

Brief

The academic Bachelor in Computer Systems consists of three years of learning/training (six pedagogical semesters) in information technologies. The study program allows the student to acquire all the lessons that will lead him to build a theoretical and practical base of fundamental knowledge in computer science.

Field	Branch	Speciality
Mathematics and Computer Science	<i>Computer Science</i>	<i>Computer Systems</i>

First Semester

Teaching unit	Matter	Credit	Coefficient	Course	TD	TP	HV
Fundamental Unit 1	Analysis 1	6	4	3h	3h		90h
	Algebra 1	5	2	1h30	1h30		45h
Fundamental Unit2	Algorithmic and data structures 1	6	4	3h	1h30	3h	112h30
	Machine structure 1	5	3	1h30	1h30		45h
Methodological Unit	Scientific terminology and expression	2	1	1h30			22h30
	English 1	2	1	1h30			22h30
Discovery Unit	Physics 1	2	2	1h30	1h30		45h

Second Semester

Teaching unit	Matter	Credit	Coefficient	Course	TD	TP	HV
Fundamental Unit 1	Analysis 2	6	4	3h	1h30		67h30
	Algebra 2	4	2	1h30	1h30		45h
Fundamental Unit 2	Algorithmic and data structures 2	6	4	1h30	1h30	1h30	67h30
	Machine structure 2	4	2	1h30	1h30		45h
Methodological Unit	Introduction to probabilities and statistics	3	2	1h30	1h30		45h
	Information and communication techniques	2	1	1h30			22h30
	Mathematics programming tools	2	1	1h30		1h30	45h
Transversal Unit	Physics 2	2	2	1h30	1h30		45h

Third Semester

Teaching unit	Matter	Credit	Coefficient	Course	TD	TP	HV
Fundamental Unit 1	Computers architecture	5	3	1h30	1h30	1h30	67h30
	Algorithmic and data structures 3	6	3	3h	1h30	1h30	90h
Fundamental Unit 2	Information systems	5	3	1h30	1h30	1h30	67h30
	Graph theory	4	2	1h30	1h30		45h
Methodological Unit	Numerical methods	2	1	1h30		1h30	45h
	Mathematical	4	2	1h30	1h30		45h

Teaching unit	Matter	Credit	Coefficient	Course	TD	TP	HV
	logic						
Transversal Unit	English 2	2	1	1h30			22h30

Fourth semester

Teaching unit	Matter	Credit	Coefficient	Course	TD	TP	HV
Fundamental Unit 1	Languages theory	5	2	1h30	1h30	1h30	67h30
	Exploitation systems 1	5	3	1h30	1h30	1h30	67h30
Fundamental Unit 2	Data bases	5	3	1h30	1h30	1h30	67h30
	Networks	5	3	1h30	1h30	1h30	67h30
Methodological Unit	Object-oriented programming	4	2	1h30		1h30	45h
	Web applications development	4	2	1h30		1h30	45h
Transversal Unit	English 3	2	1	1h30			22h30

Fifth semester

Teaching unit	Matter	Credit	Coefficient	Course	TD	TP	HV
Fundamental Unit 1	Exploitation systems 2	5	3	1h30	1h30	1h30	67h30
	Compilation	5	3	1h30	1h30	1h30	67h30
Fundamental Unit 2	Software engineering	5	3	1h30	1h30	1h30	67h30
	Human Machine Interface	5	3	1h30	1h30	1h30	67h30
Methodological Unit	Linear programming	4	2	1h30	1h30		45h
	Probabilities and statistics	4	2	1h30	1h30		45h
Transversal Unit	Digital	2	1		1h30		22h30

Teaching unit	Matter	Credit	Coefficient	Course	TD	TP	HV
	economy and strategic monitoring						

Six Semester

Teaching unit	Matter	Credit	Coefficient	Course	TD	TP	HV
Fundamental Unit 1	Mobiles apps	5	3	1h30		1h30	45h
	Information security	5	3	1h30	1h30		
Fundamental Unit 2	Artificial intelligence	5	3	1h30		1h30	45h
	Semi-Structured data	5	3	1h30		1h30	45h
Methodological Unit	Project	6	3				150h
	Scientific redaction	2	1		1h30		22h30
Transversal Unit	Create and develop a startup	2	1	1h30			22h30