

Course listing

MODULE	ID	ECTS	SEMESTER
Principles of operating systems	CS_A_06	5	Autumn
Network Services	CS_A_07	3	Autumn
Advanced algorithms	CS_A_08	3	Autumn
Advanced object design and programming	CS_A_09	5	Autumn
Methodology for the production of applications	CS_A_10	6	Autumn
English	CS_A_11	4	Autumn
Internship/ Professional project	CS_A_12	6	Autumn

ID:	CS_A_06			ECTS
Disciplinary field:	Hardware Architecture, Operating Systems, Networks			5
Module:	Principles of operating systems			
Semester:	<i>Autumn</i>			
Teaching hours:	15h	14h	16h	
	Lectures	Tutorial classes	Practical work	
Teaching type:	<input checked="" type="checkbox"/> English-only		<input type="checkbox"/> French-English	

- Objective(s):
 - To understand the architecture of an operating system.
 - Sensitize students to administration problems: know how to install a system, know the basic principles of system administration.
- Skill(s):
 - Know the main principles and concepts of operating systems at the level internal.
 - Know some mechanisms for implementing operating systems multitasking, multi-user.
 - Core architectures.
- Prerequisite(s):
 - Architecture and programming of the basic mechanisms of a computer system.
- Remark(s):
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ID:	CS_A_07			ECTS
Disciplinary field:	Hardware Architecture, Operating Systems, Networks			3
Module:	Network Services			
Semester:	<i>Autumn</i>			
Teaching hours:	7h	10h	12h	
	Lectures	Tutorial classes	Practical work	
Teaching type:	<input type="checkbox"/> English-only		<input checked="" type="checkbox"/> French-English	

- Objective(s):
- Interconnecting networks and implementing services.
- Skill(s):
- Administration of systems, software and networks.
- Advice and technical assistance for users, clients and services.
- Preparation of quantitative and qualitative diagnostics, software technical support.
- Prerequisite(s):
- Network Architecture.
- Remark(s):
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ID:	CS_A_08			ECTS
Disciplinary field:	Algorithms, Programming, Languages			3
Module:	Advanced algorithms			
Semester:	<i>Autumn</i>			
Teaching hours:	8h	10h	12h	
	Lectures	Tutorial classes	Practical work	
Teaching type:	<input type="checkbox"/> English-only		<input checked="" type="checkbox"/> French-English	

- Objective(s):
 - To know how to use certain advanced data structures, how to implement some, and to know how to implement the algorithm that manipulate them.
- Skill(s):
 - Technical design of a computer solution.
 - Production of a computer solution.
 - Validation tests for a computer solution.
- Prerequisite(s):
 - Data structures and fundamental algorithms.
 - Graphs and languages.
- Remark(s):
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ID:	CS_A_09			ECTS
Disciplinary field:	Analysis, Design and Development of Applications			5
Module:	Advanced object design and programming			
Semester:	<i>Autumn</i>			
Teaching hours:	12h	18h	14h	
	Lectures	Tutorial classes	Practical work	
Teaching type:	<input type="checkbox"/> English-only		<input checked="" type="checkbox"/> French-English	

- Objective(s):
 - To produce a detailed design by applying design patterns, to implement it using object-oriented programming good practices.
- Skill(s):
 - Analysis of a computer solution.
 - Technical design of a computer solution.
 - Production of a computer solution.
- Prerequisite(s):
 - Basis of object-oriented programming.
 - Basis of object-oriented design.
- Remark(s):
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ID:	CS_A_10			ECTS
Disciplinary field:	Analysis, Design and Development of Applications, Economics, Management, Organisation, Law			6
Module:	Methodology for the production of applications			
Semester:	<i>Autumn</i>			
Teaching hours:	14h	22h	24h	
	Lectures	Tutorial classes	Practical work	
Teaching type:	<input checked="" type="checkbox"/> English-only		<input type="checkbox"/> French-English	

- Objective(s):
 - To analyze the requirements for the design and development of information systems in an organization.
 - To organize and manage a project
 - To cover the life cycle, integrating different points of view: the organization and its strategy, users, management, quality and technology, maintenance and operation.
- Skill(s):
 - Analysis of a computer solution.
 - Technical design of a computer solution.
 - Production of a computer solution.
- Prerequisite(s):
 - Basis of object-oriented programming.
 - Basis of object-oriented design.
 - Database programming and administration.
 - Functioning of organisations.
 - Computer project management.
- Remark(s):
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ID:	CS_A_11		ECTS
Disciplinary field:	Computing		4
Module:	English		
Semester:	<i>Autumn</i>		
Teaching hours:	-	20h	18h
	Lectures	Tutorial classes	Practical work
Teaching type:	<input checked="" type="checkbox"/> English-only		<input type="checkbox"/> French-English

- Objective(s):
- Collaborating in English
- Skill(s):
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- Prerequisite(s):
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- Remark(s):
- For non-native speakers.

ID:	CS_A_12			ECTS
Disciplinary field:	Computing			6
Module:	Internship/ Professional project			
Semester:	<i>Autumn</i>			
Teaching hours:	-	-	-	
	Lectures	Tutorial classes	Practical work	
Teaching type:	<input checked="" type="checkbox"/> English-only		<input type="checkbox"/> French-English	

- Objective(s):
- Internship in a research lab of the university
- Skill(s):
- Software development in computer vision
- Prerequisite(s):
- Basis in Computer Vision
- Remark(s):
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