Curriculum Content. Description of the Programme of Study

UPC students studying at UNIPD

	First Semester	ECTS
	Process-Oriented Data Processing	6
	Algorithms, Data Structures and Databases	6
	Data Warehousing	6
1st Year at FIB	Statistical Inference and Modeling	6
	Multivariate Analysis	6
	Second Semester	
	Big Data Management	6
	Semantic Data Management	6
	Mining Unstructured Data	6
	Machine Learning	6
	Elective	6
	First Semester	ECTS
	Stochastic Methods	6
	Law and Data	6
2nd Year at UNIPD	Vision and Cognitive Systems	6
	Elective	6
	Elective	6
	Second Semester	
	Master Thesis	15
	Internship	15

Pool of Elective Courses at FIB during Second Semester of First Year		
Algorithms for Data Mining	Cloud Computing and Data Analytics	Techniques and Methodology of Innovation and Research
Viability of Business Projects	Innovation Project	

or any other elective course offered when the mobility takes place

Pool of Elective Courses at UNIPD during First Semester of Second Year		
Network Science	Cognition and Computation	Business Economics and Financial Data
Human Data Analytics	Bioinformatics	

or any other elective course offered when the mobility takes place

UNIPD students studying at UPC

<table>
<tr><td rowspan="8">1st Year at UNIPD</td><td>First Semester</td><td>ECTS</td></tr>
<tr><td>Fundamentals of Information Systems</td><td>12</td></tr>
<tr><td>Statistical Learning MOD. A</td><td>6</td></tr>
<tr><td>Machine Learning</td><td>6</td></tr>
<tr><td>Stochastic Methods</td><td>6</td></tr>
<tr><td>Law and Data</td><td>6</td></tr>
<tr><td>Second Semester</td><td></td></tr>
<tr><td>Big Data Computing</td><td>6</td></tr>
<tr><td></td><td>Statistical Learning MOD. B</td><td>6</td></tr>
<tr><td></td><td>Natural Language Processing</td><td>6</td></tr>
<tr><td></td><td>Optimization for Data Science</td><td>6</td></tr>
<tr><td rowspan="8">2nd Year at FIB</td><td>First Semester</td><td>ECTS</td></tr>
<tr><td>Process-Oriented Data Science</td><td>6</td></tr>
<tr><td>*Elective*</td><td>6</td></tr>
<tr><td>*Elective*</td><td>6</td></tr>
<tr><td>*Elective*</td><td>6</td></tr>
<tr><td>** Students will be informed to start working on the master thesis during the first semester to compensate the added workload in the second one*</td><td></td></tr>
<tr><td>Second Semester</td><td></td></tr>
<tr><td>Master Thesis</td><td>30</td></tr>
<tr><td>Semantic Data Management</td><td>6</td></tr>
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Pool of Elective Courses at FIB during First semester of Second Year		
Advanced Statistical Modeling	Techniques and Methodology of Innovation and Research	
Advanced Multivariate Analysis	Complex Social Networks	Information Retrieval and Recommender Systems
Advanced Machine Learning	Bioinformatics and Statistical Genetics	

or any other elective course offered when the mobility takes place

All mandatory courses at UPC will be covered by UniPd students according to the following table:

UPC Mandatory Courses	ECTS	Corresponding Courses for UniPD students	ECTS
Algorithms, Data Structures and Databases	6	Fundamentals of Information Systems	12
Data Warehousing	6		
Statistical Inference and Modeling	6	Statistical Learning MOD. A	6
Machine Learning	6	Machine Learning	6
Big Data Management	6	Big Data Computing	6
Multivariate Analysis	6	Statistical Learning MOD. B	6
Mining Unstructured Data	6	Natural Language Processing	6
Process-Oriented Data Science	6	Process-Oriented Data Science (*)	6
Semantic Data Management	6	Semantic Data Management (*)	6

(*) Educational activity taken by UniPd students at UPC