## STATISTICAL METHODS AND APPLICATIONS (SMA) Academic year 2020-2021

## **Curriculum OFFICIAL STATISTICS**

Educational Activities		Ects	Year	Term
Characterizing	Mandatory Courses			
54 ECTS	1. Stochastic processes	9	1	1
	2. Bayesian modeling	6	1	1
	3. Sample surveys	9	1	2
	4. Data management in official statistics	6	1	2
	5. Data quality and other issues in official statistics	6	1	2
	6. Laboratory of financial and monetary statistics	3	1	2
	7. Spatial statistics and statistical tools for environmental data	9	2	1
	8. Advanced economic statistics	6	2	1
Supplementary	Elective Courses			
Choose for a total of 9 ECTS	- Advances in data analysis and statistical modeling or Probability and Statistics	9	1	1
	- Financial econometrics	9	2	2
Choose for a total of 6 ECTS	- Big data for official statistics	6	1	1
	- Algorithms and data structures	6	1	2
	- International Demography	6	2	1
	- Big Data Analytics	6	2	2
	- Computational statistics	6	2	2
	- Efficiency and productivity analysis	6	2	2
	- Survey methodology	6	2	2
Other educational activities				
Choose for a total of 9 ECTS	11. Free-choice exam from the list of available exams at Sapienza	9	2	1
9 ECTS	12. Internship/Stage	9	1	2
Choose for a total of 3 ECTS	<ul> <li>Laboratory of stochastic processes</li> <li>Complementary activities</li> <li>Case studies and statistical consulting</li> <li>Laboratory of machine learning</li> </ul>	3 3 3 3	1 1 1 1	1 1 2 2
Master Thesis		30		

This version: 18/03/2