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Double Master's Degree Agreement between the Department of Statistics, Athens University of Economics and Business, and the Department of Political Science, University of Naples

Appendix B (UNINA Students)

UNINA students will attend both semesters of the first year and the first semester of the second year at their home university. In Naples, UNINA students must pass the courses of Table 4 for Statistical Learning & Intelligent Data Analysis curriculum and the courses of Table 5 for Statistics for Human and Social Sciences curriculum.

Computational Statistics is compulsory in both curricula.

UNINA students will attend the second semester of the second year at the partner university. In Athens, UNINA students must pass the courses in Table 8 for **Statistical Learning & Intelligent Data Analysis curriculum** and **Statistics for Human and Social Sciences curriculum**, considering the courses and ECTS correspondence listed for each curriculum in Tables 6 and 7, respectively.

The thesis will be common in both M.Sc. programmes but it will need to meet the requirements of both Universities.

Table 4 Courses that UNINA students need to take at UNINA for the Master of Science in Statistical Science for Decision *(Statistical Learning & Intelligent Data Analysis curriculum)*

UNINA Courses (1st year) for UNINA students	ECTS	Semester
Statistical Inference Theory	9	Winter
GLM Generalised Linear Models + GLM Generalised Linear Models Laboratory	12	Winter
One course to choose: - Analysis Of Economic and Financial Time Series - Medical Statistics and Epidemiological Methodology	9	 Winter Summer
Computational Statistics (compulsory)	6	Summer
Network Science	6	Summer
Text Mining	6	Summer
Python Laboratory for Data Science	6	Winter
Business Intelligence Laboratory	6	Winter
TOTAL	**60**	

Table 5 Courses that UNINA students need to take at UNINA for the Master of Science in Statistical Science for Decision *(Statistics for Human and Social Sciences curriculum)*

UNINA Courses (1st year) for UNINA students	ECTS	Semester
Mathematical Methods for Statistics	9	Winter
Statistical Inference Theory	9	Winter
Multivariate Statistical Analysis	9	Winter
Statistical Computing Laboratory with R	6	Winter
Applied Statistical Modelling	9	Summer
Network Science	6	Summer
Text Mining	6	Summer
Related or Supplementary Teaching	6	
Computational Statistics (compulsory)	6	Summer
TOTAL	**66**	

Table 6 Course substitutions for *Statistical Learning & Intelligent Data Analysis curriculum*

UNINA course	ECTS	AUEB Course	ECTS
Statistical Inference	9	Probability and Statistical Inference	7,5
- Theory of Generalized Linear Models (9 ECTS) - Generalized linear models lab (3 ECTS) - Python for Data Science (6 ECTS) - Computational Methods (6 ECTS)	24	- Generalized linear models (7,5 ECTS) - Data Analysis (7,5 ECTS) - Computation Statistics (7,5 ECTS)	22,5
Total (core)	**35**	**Total of 1st semester at AUEB**	**30**

Table 7 Course substitutions for *Statistics for Human and Social Sciences curriculum*

UNINA course	**ECTS**	**AUEB Course**	**ECTS**
Statistical Inference	9	Probability and Statistical Inference	7,5
- Theory of Generalized Linear Models (9 ECTS) - Statistical Computing Laboratory with R (6 ECTS) - Applied Statistical Modelling (9 ECTS) - Computational Methods (6 ECTS)	30	- Generalized linear models (7,5 ECTS) - Data Analysis (7,5 ECTS) - Computation Statistics (7,5 ECTS)	22,5
Total (core)	**39**	**Total of 1st semester at AUEB**	**30**

Table 8 Courses that UNINA students need to take at AUEB for the Master of Science in Statistics

AUEB Courses (2nd year) for UNINA students	**ECTS**	**Semester**
No core courses needed (given that Computational Statistics course is taken in UNINA)		Winter
Select 2 of the following courses • Health Data Science (Cycle A) • Statistical and Machine Learning (Cycle B) • Financial Analytics (Cycle C)	7,5 + 7,5	Summer
Short courses/seminar/activities of M. Sc.	3	Summer
Select 4 of the following (half semester) courses (3 ECTS each) • *Advanced Survey Sampling Methods (Cycle A)* • *Statistical Quality Control (Cycle A)* • *Topics in Applied Statistics: Statistical Genetics – Bioinformatics (Cycle A)* • *Data Management (Cycle B)* • *Bayesian Models in Statistics (Cycle B)* • *Topics in Computational Statistics: Applied Stochastic Modeling (Cycle B)* • *Probability Theory (Cycle C)* • *Stochastic Modeling in Finance (Cycle C)* • *Advanced Stochastic processes (Cycle C)* • *Topics in Stochastics: Stochastic Models in Operation Research (Cycle C)* *(in order to complete a cycle you need the main course and 2 half-semester optional courses from the specific cycle)*	12	Summer
M. Sc. Thesis submitted at AUEB	30	Summer
TOTAL	**60**	