Program: **Survey Statistics and Data Analytics**					Level: **Master (MSc)**		
Schedule: **daytime**					Language: **english**		
Total credits: **120 (4 semesters)**					Prgram director: **Renáta Németh**		

Subject code	Subject name	Semester	Credit	Hours per week	Subject type	Course format	Requirement	Prerequisite courses*
	MATHEMATICAL FOUNDATIONS ›› 21 credits are mandatory							
	Fundamentals of Mathematics I	1	3	2	Compulsory	Lecture	Exam (5)	
	Analysis Lecture	1	3	2	Compulsory	Lecture	Exam (5)	*Analysis Practice*
	Analysis Practice	1	2	2	Compulsory	Seminar	Term mark (5)	
	Probability Theory Lecture	1	3	2	Compulsory	Lecture	Exam (5)	*Probability Theory Practice*
	Probability Theory Practice	1	2	2	Compulsory	Seminar	Term mark (5)	
	Fundamentals of Mathematics II	2	3	2	Compulsory	Lecture	Exam (5)	
	Mathematical Statistics Lecture	2	3	2	Compulsory	Lecture	Exam (5)	*Mathematical Statistics Practice*
	Mathematical Statistics Practice	2	2	2	Compulsory	Seminar	Term mark (5)	*Probability Theory Lecture*
	DATA COLLECTION AND PROCESSING ›› 6 credits are mandatory							
	Data Collection Methods and Sampling	1	3	2	Compulsory	Lecture	Exam (5)	
	Survey Data Processing	2	3	2	Compulsory	Seminar	Term mark (5)	
	FOUNDATIONS OF BUSINESS RESEARCH ›› 14 credits are mandatory *(4th semester courses can also be completed in Erasmus mobility program with courses similar in content)*							
	Market Research I	2	3	2	Compulsory	Lecture	Exam (5)	
	Market Research II	3	3	2	Compulsory	Seminar	Term mark (5)	*Market Research I*
	Project Seminar	3,4	4	3	Compulsory elective	Seminar	Term mark (5)	
	Communication and Project Management	2,3,4	4	2	Compulsory	Seminar	Term mark (5)	
	PROGRAMMING ›› 7 credits are mandatory *(4th semester courses can also be completed in Erasmus mobility program with courses similar in content)*							
	Introduction to R	1	4	2	Compulsory	Seminar	Term mark (5)	
	Introduction to Python	2	3	2	Compulsory	Seminar	Term mark (5)	
ESST-PROG1	Data analysis infrastructure (SQL, Git, other tools)	2,4	4	2	Compulsory elective	Seminar	Term mark (5)	*Introduction to Python*
	DATA ANALYSIS ›› 18 credits are mandatory *(4th semester courses can also be completed in Erasmus mobility program with courses similar in content)*							
	Multivariate Statistics Lecture	3	3	2	Compulsory	Lecture	Exam (5)	*Mathematical Statistics Lecture,* <u>Multivariate Statistics Practice</u>
	Multivariate Statistics Practice	3	2	1	Compulsory	Seminar	Term mark (5)	*Mathematical Statistics Lecture,* <u>Multivariate Statistics Lecture</u>
	Data Analysis I	3	3	2	Compulsory	Seminar	Term mark (5)	**Mathematical Statistics Lecture**
	Data Analysis II	4	3	2	Compulsory elective	Seminar	Term mark (5)	**Multivariate Statistics Lecture, Multivariate Statistics Practice, Data Analysis I**
	Data Science Lecture	4	4	2	Compulsory elective	Lecture	Exam (5)	*Data Science Practice*
	Data Science Practice	4	3	2	Compulsory elective	Seminar	Term mark (5)	**Multivariate Statistics Lecture, Multivariate Statistics Practice, Data Analysis I**
	APPLIED METHODS ›› 9 credits are mandatory *(4th semester courses can also be completed in Erasmus mobility program with courses similar in content)*							
	Social Science Research	1,2,3,4	4	2	Compulsory	Lecture	Exam (5)	
	Qualitative Methods	2,3	3	2	Compulsory elective	Lecture	Exam (5)	
	Network Analysis	3	3	2	Compulsory elective	Seminar	Term mark (5)	*Mathematical Statistics Lecture*
	Official Statistics and Data in Public Administration	*launched every two years* 1,2,3,4	2	2	Compulsory	Lecture	Exam (5)	
	ELECTIVE DIFFERENTIATED SKILLS ›› depending on the completion of compulsory elective courses from other units, 16-23 credits are necessary from this unit for the maximum of 120 credits *(4th semester courses can also be completed in Erasmus mobility program with courses similar in content)*							
	A certificate of completion of the following modules can be issued to those students only who complete at least 2 courses from the same module.							
	Biomedical research module							
ESST139	Biostatistics	3,4	3	2	Compulsory elective	Seminar	Term mark (5)	
	Meta-analysis	*launched every two years* 2,4	3	2	Compulsory elective	Seminar	Term mark (5)	
	Economic research module							
ESST-KGEMA06	Econometrics	3	3	2	Compulsory elective	Lecture	Exam (5)	
ESSTA-AM-1	Public Policy Impact Assesment	3,4	3	2	Compulsory elective	Seminar	Term mark (5)	
	Public Policy Analysis	1,2,3,4	3	2	Compulsory elective	Lecture	Exam (5)	
	Digital data analytics module							

ESST140	Social Media Analytics	3; 4	3	2	Compulsory elective	Seminar	Term mark (5)	
ESST145	Understanding Digital Societies	1,2,3,4	3	2	Compulsory elective	Seminar	Term mark (5)	
	Natural Language Processing	4	3	2	Compulsory elective	Seminar	Term mark (5)	**Introduction to Python**
Social research module								
ESST146	Social Network Analysis	3,4	3	2	Compulsory elective	Seminar	Term mark (5)	*Network analysis*
ESST147	Applied Social Research	3,4	3	2	Compulsory elective	Seminar	Term mark (5)	
Business research module								
ESSTA-UK1	Data Visualization	3,4	4	2	Compulsory elective	Seminar	Term mark (5)	*Introduction to Python*
ESST136	Business Analytics	2,3,4	3	2	Compulsory elective	Lecture	Exam (5)	
FINAL COURSES ›› 16 credits are mandatory								
	Internship	3,4	8		Compulsory	Seminar	Term mark (3)	
	Thesis Consultation	4	8	*(240 hours per semester)*	Compulsory	Seminar	Term mark (3)	
FREE ELECTIVE COURSES ›› 6 credits are mandatory								
	Fundamentals of Research Methodology	1	8	2	Free elective	Seminar	Term mark (5)	

* **the prerequisite course must be completed in a previous semester**

* *the course and its prerequisite can be taken in the same semester*

* <u>the course and its prerequisite must be taken in the same semester</u>