

Master of Science in Statistical Data Science

30 Units: Total Units Required to Complete the Degree

18 units: Required Courses

Course	Description	Units	Offered
Math 448	Introduction to Statistical Learning & Data Mining	3	Fall
Math 742	Advanced Probability Models	3	Fall
Math 748	Theory and Applications of Statistical and Machine Learning	3	Spring
Math 760	Multivariate Statistical Methods	3	Spring
Math 761	Computational Statistics	3	Fall
Math 892 OR Math 895 OR Math 898	Data Science Internship OR Research Project OR Master's Thesis	3	
Total Required Courses		18	
Total Guided Electives		12	
Total Units for the major		30	

Guided Electives Courses (12 Units) – No more than 9 units should be from undergraduate only courses. Per student's interested specialization and upon Graduate Advisor's approval, the student is recommended to choose a set of electives in the following areas. The electives will be chosen from one of the areas below:

- **Probability and Statistics Electives**
- **Mathematics Electives**
- **Computer Science Electives**

Guided Electives in Probability and Statistics

Course	Description	Units	Offered
Math 440	Probability and Statistics I	3	Fall, Spring
Math 441/741	Probability and Statistics II	3	Fall, Spring
Math 424/724	Introduction to Linear Models	3	Spring
Math 442	Probability Models	3	Spring
Math 443	Introduction to Time Series Analysis	3	Fall
Math 447	Design and Analysis of Experiments	3	Fall
Math 449	Categorical Data Analysis	3	Spring
Math 899	Independent Study	3	

Guided Electives in Mathematics

Course	Description	Units	Offered
Math 400	Numerical Analysis	3	
Math 425	Applied and Computational Linear Algebra	3	
Math 430	Mathematics of Optimization	3	
Math 460	Mathematical Modeling	3	
Math 471/771	Fourier Analysis and Applications	3	
Math 477/777	Partial Differential Equations	3	
Math 495	Introduction to Wavelets and Frames with Applications	3	
Math 710	Measure and Integration		
Math 725	Advanced Linear Algebra		

Guided Electives in Computer Science

Course	Description	Units	Offered
CSC 821	Biomedical Imaging and Analysis	3	
CSC 865	Artificial Intelligence	3	
CSC 869	Data Mining	3	
CSC 872	Pattern Analysis and Machine Intel	3	
CSC 874	Topics in Big Data Analysis	3	

If you have any questions regarding the Statistics BS, please contact [Dr. Alexandra Piryatinska](#) or [Dr. Mohammad Kafai](#).