

**Master of Science in Data Science**  
**School of Advanced Sciences**

<b>Programme Credit Structure</b>		<b>M.Sc.</b>					
<b>University Core Courses</b>	<b>16</b>				MATXXXX	Bio-Inspired Optimization	2 2 3
<b>Programme Core Courses</b>	<b>40</b>				MAT4202	Statistical Quality Control	3 2 4
<b>Programme Elective</b>	<b>20</b>				MAT3103	Actuarial statistics	3 0 3
<b>University Elective</b>	<b>04</b>				MATXXXX	Reliability and Survival Analysis	2 2 3
<b>Total Graded Credit Requirement</b>	<b>80</b>				CSE0505	Data Visualization and Exploration	3 2 4
<b>University Core [16 Credits]</b>					CSE0303	Information Retrieval Techniques	3 2 4
<b>Course Code</b>	<b>Course Title</b>	<b>T</b>	<b>P</b>	<b>C</b>	CSE4037	Reinforcement Learning	3 2 4
MIT5001	Internship/CO-OP/ Design Project	0	0	1	CSE0601	Big Data Analytics using NoSQL	3 2 4
SET5001	Conference Paper Presentation	0	0	2	MATXXXX	Healthcare Analytics	3 2 4
ENG5001	Technical and Research Writing	1	2	2	CSEXXXX	Cloud Computing	3 0 3
STS5001	Essentials of Business Etiquette and Problem Solving	0	2	1	CSEXXXX	Data Privacy and Security	3 2 4
STS6001	Preparing for Industry	0	2	1	CSE0305	Fundamentals of Natural Language Processing	3 2 4
<b>Programme Core (40 Credits)</b>					CSE0506	Social Network Data Analytics	2 2 3
MAT4101	Linear Algebra and Optimization	4	0	4	MATXXX	Bayesian Data Analysis	2 2 3
CSE0501	Programming and Data Structures with Python	3	2	4	<b>University Electives (3 Credits)</b>		
MAT4103	Statistical Inference	3	2	4	MAT4105	Research Methods and Project Preparation	2 0 2
MAT4102	Fundamentals of Data Science	3	2	4	CSEXXX	Neural Networks and Fuzzy systems	2 2 3
CSE0502	Database Essentials for Data Science	3	2	4	CSEXXXX	Computer Organization and Architecture	3 0 3
MAT4200	Regression Analysis and Predictive Models	3	2	4	CSEXXXX	Blockchain Technology	3 0 3
MAT4201	Time series analysis and Forecasting	3	2	4	CSE0402	Image Processing	3 2 4
MAT4203	Multivariate Data Analysis	3	2	4	ECE0401	Signal Processing	2 2 3
CSE0503	Concepts of Data Mining	3	2	4		Basic French	2 0 2
CSE0504	Machine Learning and Applications	3	2	4		Basic Spanish	2 0 2
<b>Programme Electives (20 Credits)</b>						Basic German	2 0 2
CSE0602	Artificial Intelligence	3	2	4		Basic Japanese	2 0 2
CSE0602	Deep Learning and it's Applications	3	2	4	MGTXXX	Lean Start-up Management	2 0 2
MAT2101	Stochastic Process	3	0	3	MGTXXX	Fundamentals of Economics	2 0 2
					MGTXXX	Fundamentals of Marketing	3 0 3
					MGTXXX	Accounting and Finance	2 0 2
					MGTXXX	Fundamentals of Supply Chain Analytics	2 0 2
						Environmental Studies	P/F
					MGTXXX	Fundamentals of Business Analytics	2 2 3
					STSXXXX	Soft Skills	0 2 1