MSc in Data Science and Machine Learning (MDSML)
COURSE LIST for AY2025 & AY2026 Intake

Course Code and Title		No. of Units	Remarks#
Core Courses - Students must complete five core courses (total 20units)			
DSA5101	Introduction to Big Data for Industry	4	
DSA5103	Optimization Algorithms for Data Modelling	4	
DSA5104	Principles of Data Management and Retrieval	4	
DSA5105	Principles of Machine Learning	4	
DSA5106	Deep Learning: Foundations and Techniques	4	
Elective Courses - Students are required to complete five courses from the following list (total 20units)			
Courses offered by the Department of Mathematics			
DSA5201	DSML Industry Consulting and Applications Project	4	
DSA5202	Advanced Topics in Machine Learning	4	SSG subsidised
DSA5203	Visual Data Processing and Interpretation	4	SSG subsidised
DSA5205	Data Science in Quantitative Finance	4	SSG subsidised
DSA5206	Advanced Topics in Data Science	4	
DSA5207	Text Processing & Interpretation with Machine Learning	4	
DSA5208	Scalable Distributed Computing for Data Science	4	
DSA5209	Stochastic Methods and Inferences for Big Data	4	
MA4230	Matrix Computation	4	
MA5232	Modelling and Numerical Simulations	4	
MA5270	Game Theory and Applications	4	
QF5204	Numerical Methods in Quantitative Finance	4	
Courses offered by other departments			
CS4248	Natural Language Processing	4	SSG subsidised
CS5224	Cloud Computing	4	
CS5228	Knowledge Discovery and Data Mining	4	
CS5344	Big-Data Analytics Technology	4	SSG subsidised
ST5201	Statistical Foundations of Data Science	4	
ST5202	Applied Regression Analysis	4	
ST5225	Statistical Analysis of Networks	4	SSG subsidised

#SSG funding for courses is limited in duration and subject to availability.

NOTE:
a) **Enrollment in the courses from other departments will be subjected to the specific quotas from the corresponding department.**
b) **As the course list could be updated from time to time, please check back on a regular basis to ensure that you are referring to the most updated version.**

Updated on 24 January 2026