MSc in Data Science and Machine Learning (MDSML)
COURSE LIST for AY2024 Intake

Course Code	Course 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	
DSA5201	DSML Industry Consulting and Applications Project	4	
Elective Courses - Students are required to complete five courses from the following list (total 20units)			
Courses offered by the Department of Mathematics			
DSA5202	Advanced Topics in Machine Learning	4	SSG subsidised
DSA5203	Visual Data Processing and Interpretation	4	SSG subsidised
DSA5204	Deep Learning and Applications	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	
MA4230	Matrix Computation	4	
MA4235	Topics in Graph Theory	4	
MA5232	Modelling and Numerical Simulations	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

**Enrollment in the courses from other departments will be subjected to the specific quotas from the corresponding department.

NOTE:

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 June 2024

MSc in Data Science and Machine Learning (MDSML)
COURSE LIST for AY2022 & AY2023 Intake

Course Code	Course 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	
DSA5201	DSML Industry Consulting and Applications Project	4	
Elective Courses - Students are required to complete five courses from the following list (total 20units)			
Courses offered by the Department of Mathematics			
DSA5202	Advanced Topics in Machine Learning	4	SSG subsidised
DSA5203	Visual Data Processing and Interpretation	4	SSG subsidised
DSA5204	Deep Learning and Applications	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 *(NEW)*	4	
DSA5208	Scalable Distributed Computing for Data Science *(NEW)*	4	
DSE4212	Data Science in FinTech	4	
MA4230	Matrix Computation	4	
MA4235	Topics in Graph Theory	4	
MA5232	Modelling and Numerical Simulations	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
SPH5104	Analytics for Better Health	4	SSG subsidised
SPH5411	Information Technology in Healthcare	4	SSG subsidised

**Enrollment in the courses from other departments will be subjected to the specific quotas from the corresponding department.

Updated on 24 June 2024

*Graduate Certificate in Deep Learning for Data Scientists (offered at Dept. Of Mathematics)			
DSA5202	Advanced Topics in Machine Learning	4units	SSG subsidised
DSA5204	Deep Learning and Applications	4units	SSG subsidised

* The issuance of Graduate Certificates (GCs) only applies to Continuing Education and Training (CET) students who fulfilled the GCs' requirements, prior to admission to the MSc DSML programme. This refers to students who read the required courses on a standalone basis via NUS L^3 pathway before admission to the MSc DSML programme. There will not be any issuance of GCs to MSc DSML students who completed the courses during the programme.

NOTE:

- **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.**
- **Graduate Certificate in Data Science for Quantitative Finance will be discontinued wef Semester 1, AY2024/2025.**