

Major in Data Science and Economics

Graduation Requirements for students admitted in AY2023/2024

To be awarded a **Major in Data Science and Economics**, a candidate must satisfy the following:

Course Level	Major Requirements	Level Units	Cumulative Major Units
1000	I. Pass: - DSE1101 Introductory Data Science for Economics¹ - EC1101E Introduction to Economic Analysis	8	8
2000	2. Pass: - CS2040 Data Structures and Algorithms² - DSA2101 Essential Data Analytics Tools: Data Visualisation - DSA2102 Essential Data Analytics Tools: Numerical Computation - EC2101 Microeconomic Analysis I - EC2102 Macroeconomic Analysis I - MA2001 Linear Algebra I - MA2002 Calculus - MA2311 Techniques in Advanced Calculus or MA2104 Multivariable Calculus - ST2131/MA2116/MA2116T Probability - ST2132 Mathematical Statistics	40	48
3000	3. Pass - DSA3102 Essential Data Analytics Tools: Convex Optimisation - DSE3101 Practical Data Science for Economics - EC3101 Microeconomic Analysis II - EC3102 Macroeconomic Analysis II - EC3304 Econometrics II - ST3131 Regression Analysis	24	72
4000	4. Pass - DSE4101 Capstone Project in Data Science and Economics I - EC4305 Applied Econometrics 4 additional courses from the following: - DSA4264 Sense-Making Case Analysis: Public Policy and Society or DSA4265 Sense-Making Case Analysis: Economics and Finance - DSE4201 Capstone Project in Data Science and Economics II³ - DSE4211 / QF4211 Digital Currencies	24	96

	• DSE4212 / QF4212 Data Science in FinTech • DSE4231 Topics in Data Science and the Digital Economy • EC4308 Machine Learning and Economic Forecasting • EC4325 The Economics of Digital Platforms • EC4501 Economics and Computation • FE5213 Quantitative Macroeconomics and Finance with Python		
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¹DSE1101 will be read in fulfilment of the Data Literacy requirement under the CHS Common Curriculum.

²CS1010S Programming Methodology, the pre-requisite of CS2040, will be read in fulfilment of the Digital Literacy requirement under the CHS Common Curriculum.

³The scope of DSE4101 can be optionally extended by 4 Units using DSE4201 Capstone Project in Data Science and Economics II, subject to the approval of the DSE programme committee.

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