Minor in Data Analytics

Requirements for Cohorts AY2019/2020 and after

A. For any student who falls under any of the following categories, pass 20 Units consisting of the courses listed in the table below:

- reading a Primary Major in Mathematics, Quantitative Finance, or Statistics in the Faculty of Science
- reading a Primary Major in the College of Design and Engineering (all Engineering majors)
- reading a Primary Major in the School of Computing (except the Major in Business Analytics)
- reading a Second Major in Mathematics, Quantitative Finance, or Statistics
- passed a MA-coded course (except MA1301/MA1301X)
- passed ST2131/MA2116/MA2116T/ST2334/ST3236/ST4238/MA4251

Levels	Minor Requirements	Cumulative Major Units
Level 1000 (4 Units)	Pass: • **One** of the following courses: ○ BT1101 Introduction to Business Analytics ○ DSA1101 Introduction to Data Science [1] ○ DSE1101 Introductory Data Science for Economics [2] ○ GEA1000/GEA1000N Quantitative Reasoning with Data ○ IE1111R Industrial & Systems Engrg Principles & Practice I ○ ST1131 Introduction to Statistics and Statistical Computing	4
Level 2000 (8 Units)	Pass: • DSA2101 Essential Data Analytics Tools: Data Visualisation • **One** of the following courses: ○ MA1505 Mathematics I [3] ○ MA1508E Linear Algebra for Engineering [3] ○ MA1511 Engineering Calculus (2 Units) [3] **and** MA1513 Linear Algebra with Differential Equations (2 Units) [3] ○ MA1522 Linear Algebra for Computing ○ MA2001 Linear Algebra I ○ ST2334 Probability and Statistics	12
Level 3000 (4 Units)	Pass: • DSA3361 Inferential Data Analytics • **One** of the following courses: ○ DBA3701 Introduction to Optimisation ○ DSA3102 Essential Data Analytics Tools: Convex Optimisation ○ DSA3362 Predictive Data Analytics	20

B. For all other students **not** listed in Group A above, pass 20 Units consisting of:

Levels	Minor Requirements	Cumulative Major Units
Level 1000 (4 Units)	Pass: • **One** of the following courses: ○ BT1101 Introduction to Business Analytics ○ DSA1101 Introduction to Data Science [1] ○ DSE1101 Introductory Data Science for Economics [2] ○ GEA1000/GEA1000N Quantitative Reasoning with Data ○ IE1111R Industrial & Systems Engrg Principles & Practice I ○ ST1131 Introduction to Statistics and Statistical Computing	4
Level 2000 (8 Units)	Pass: • DSA2101 Essential Data Analytics Tools: Data Visualisation • MA2401 Introductory Mathematics with R [4]	12
Level 3000 (4 Units)	Pass: • DSA3361 Inferential Data Analytics • **One** of the following courses: ○ DBA3701 Introduction to Optimisation ○ DSA3102 Essential Data Analytics Tools: Convex Optimisation ○ DSA3362 Predictive Data Analytics	20

Notes:

- The Minor in Data Analytics is **not** offered to students with a Primary Major in Business Analytics, Data Science and Analytics, or Data Science and Economics, or a Second Major in Business Analytics or Data Analytics.

1. Students with a Major in Statistics or Industrial and Systems Engineering should fulfil their Level 1000 requirements for the Minor in Data Analytics by reading DSA1101, in order to avoid triple-counting their major gateway courses.

2. DSE1101 is only offered to students majoring in Data Science and Economics.

3. MA1505, MA1508E, MA1511 and MA1513 are only offered to Engineering students.

4. Students in Group B reading the Minor in Data Analytics may replace MA2401 with three courses, with one course in each of the areas of calculus, linear algebra and probability, as follows:

Calculus	Linear Algebra	Probability
• MA1312 Calculus with Applications • MA1505 Mathematics I [3] • MA1507 Advanced Calculus • MA1511 Engineering Calculus [3] • MA1521 Calculus for Computing • MA2002 Calculus	• MA1311 Matrix Algebra • MA1508E Linear Algebra for Engineering [3] • MA1513 Linear Algebra with Differential Equations [3] • MA1522 Linear Algebra for Computing • MA2001 Linear Algebra I	• ST2131/MA2116 /MA2116T Probability • ST2334 Probability and Statistics