Requirements for Minor in Data Analytics
Applicable to cohorts AY2019/2020 and after

A. For any student who is reading a primary major in FoS (only MA, QF, ST majors), CDE (all Engineering majors) or SoC (all majors except BZA major), or is reading a second major in MA, QF, ST, or has passed an MA-coded course (except MA1301/MA1301X) or/and ST2131/ST2334/ST3236/ST4248, pass 20 Units consisting of:

Levels	Minor Requirements	Cumulative Major Units

Level 1000 (4 Units)	Pass
	- GEA1000/GEA1000N Quantitative Reasoning with Data
	  or GER1000 Quantitative Reasoning^
	  or BT1101 Introduction to Business Analytics
	  or DSA1101 Introduction to Data Science*
	  or DSE1101 Introductory Data Science for Economics^
	  or IE1111R Industrial & Systems Engrg Principles & Practice I
	  or ST1131 Introduction to Statistics and Statistical Computing
		4

Level 2000 (8 Units)	Pass
	- ST2334 Probability and Statistics
	  or MA1505 Mathematics I^^
	  or MA2001/MA1101R Linear Algebra I^
	  or MA1508E Linear Algebra for Engineering^^
	  or MA1511 Engineering Calculus^^ <u>and</u> MA1513 Linear Algebra with Differential Equations^^
	  or MA1522 Linear Algebra for Computing
	- DSA2101 Essential Data Analytics Tools: Data Visualisation
		12

Level 3000 (8 Units)	Pass
	- DSA3361 Inferential Data Analytics
	- DSA3362 Predictive Data Analytics
	  or DSA3102 Essential Data Analytics Tools: Convex Optimisation
	  or DBA3701 Introduction to Optimisation
		20

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

Levels	Minor Requirements	Cumulative Major Units

Level 1000 (4 Units)	Pass
	- GEA1000/GEA1000N Quantitative Reasoning with Data
	  or GER1000 Quantitative Reasoning^
	  or BT1101 Introduction to Business Analytics
	  or DSA1101 Introduction to Data Science*
	  or DSE1101 Introductory Data Science for Economics^
	  or IE1111R Industrial & Systems Engrg Principles & Practice I
	  or ST1131 Introduction to Statistics and Statistical Computing
		4

Level 2000 (8 Units)	Pass - MA2401 Introductory Mathematics with R** - DSA2101 Essential Data Analytics Tools: Data Visualisation	12

Level 3000 (8 Units)	Pass
	- DSA3361 Inferential Data Analytics
	- DSA3362 Predictive Data Analytics
	  or DSA3102 Essential Data Analytics Tools: Convex Optimisation
	  or DBA3701 Introduction to Optimisation
		20

DA minor students are advised to read DSA3361 before DSA2101.

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

Calculus

MA1102R/MA2002 Calculus^

MA1312 Calculus with Applications

MA1505 Mathematics I^^

MA1507 Advanced Calculus

MA1511 Engineering Calculus^^

MA1521 Calculus for Computing

Linear Algebra

MA1101R/MA2001 Linear Algebra I^

MA1311 Matrix Algebra

MA1508E Linear Algebra for Engineering^^

MA1513 Linear Algebra with Differential Equations^^

MA1522 Linear Algebra for Computing

Probability

MA2216/MA2116/ST2131 Probability

ST2334 Probability and Statistics

*Statistics major and Industrial and Systems Engineering major students should fulfil their level 1000 Minor requirements by reading DSA1101 so as to avoid triple counting their major gateway courses.

^ GER1000, MA1101R and MA1102R have been discontinued after AY2020/2021 and DSE1101 is offered only to students in the Data Science and Economics Cross-Disciplinary Programme (XDP).

^^ MA1505, MA1508E, MA1511 and MA1513 are offered only to CDE students.

The Minor in Data Analytics is not offered to students reading the following majors or second majors: Business Analytics major, Business Analytics second major, Data Science and Analytics major, Data Analytics second major, and Data Science and Economics major.

Recommended Study Plan – Minor in Data Analytics

Students who belong to Group B are advised to read the minor courses in the following sequence:

| GEA1000/N *or* GER1000 *or* BT1101 *or* DSA1101 *or* DSE1101 *or* IE1111R *or* ST1131 | → | MA2401 (*or* replaced by 3 courses with one course in each of the areas of calculus, linear algebra and probability) | → | DSA3361 | → | DSA2101 *and* (DSA3362 *or* DSA3102 *or* DBA3701) |