

**Bachelor of Science (Business Analytics)
with Second Major in Innovation & Design**

Cohort AY2022/2023

Modular Requirements	Modular Credits (MCs)
Common Curriculum	
BT1101 Introduction to Business Analytics ¹	4
CS1010S Programming Methodology ¹	4
GE: Critique and Expression ²	4
GE: Communities and Engagement ²	4
GE: Cultures and Connections ²	4
GE: Singapore Studies ²	4
IS1108 Digital Ethics and Data Privacy	4
Interdisciplinary Modules ³	8
Group A module for Second Major ³ (double-counted as Cross-disciplinary Module)	4
Sub-total for Common Curriculum	40
Programme Requirements	
MA1521 Calculus for Computing <u>or</u> MA2002 Calculus	4
MA1311 Matrix Algebra <u>or</u> MA2001 Linear Algebra I	4
BT2101 Econometrics Modeling for Business Analytics	4
BT2102 Data Management and Visualisation	4
ST2334 Probability and Statistics	4
CS2030 Programming Methodology II	4
CS2040 Data Structures and Algorithms	4
IS2101 Business and Technical Communication	4
BT3103 Application Systems Development for Business Analytics	4
IS3103 Information Systems Leadership and Communication	4
BT4103 Business Analytics Capstone Project	8
Programme electives	20
IS4010 Industry Internship Programme <u>or</u> CP3880 Advanced Technology Attachment Programme <u>or</u> BT4101 B.Sc. Dissertation	12
Sub-total for Programme Requirements	80
Unrestricted Electives	
Group B module for Second Major	4
Group C modules for Second Major (Innovation & Enterprise electives)	8
EG3301R DCP Project (over 2 consecutive semesters)	12
EG4301 DCP Dissertation <u>or</u> EG4301A Ideas to Start-up (over 2 consecutive semesters)	12
Other unrestricted electives	4
Sub-total for Unrestricted Electives	40
Total	160

Notes:

- ¹ Data Literacy and Digital Literacy pillars are satisfied by BT1101 and CS1010S, respectively.
- ² Students may read equivalent modules in USP/NUSC, UTCP, and RVRC.
- ³ Students in this Second Major are highly recommended to read DTK1234 Design Thinking or EG1311 Design and Make as an Interdisciplinary Module before taking the Group A module.

Recommended semester schedule

Semester 1	MCs	Semester 2	MCs
BT1101 Introduction to Business Analytics	4	BT2102 Database Management and Visualization	4
CS1010S Programming Methodology	4	CS2030 Programming Methodology II	4
IS1108 Digital Ethics and Data Privacy	4	IS2101 Business and Technical Communication	4
MA1311 Matrix Algebra or MA2001 Linear Algebra I	4	MA1312 Calculus with Applications or MA1521 Calculus for Computing	4
Interdisciplinary Module 1 ^	4	Group A module for Second Major	4
Sub-total	20	Sub-total	20

Semester 3	MCs	Semester 4	MCs
BT2101 Econometrics Modeling for Business Analytics	4	BT3103 Application Systems Development for Business Analytics	4
CS2040 Data Structures and Algorithms	4	IS3103 Information Systems Leadership and Communication	4
ST2334 Probability and Statistics	4	GE	4
GE	4	GE	4
Group B module for Second Major	4	EG3301R DCP Project	6
Sub-total	20	Sub-total	22

Semester 5	MCs	Semester 6	MCs
EG3301R DCP Project	6	IS4010 Industry Internship Programme	12
BT4103 Business Analytics Capstone Project	8		
Interdisciplinary Module 2	4		
GE*	4		
Sub-total	22	Sub-total	12

Semester 7	MCs	Semester 8	MCs
EG4301 DCP Dissertation or EG4301A Ideas to Start-up	6	EG4301 DCP Dissertation or EG4301A Ideas to Start-up	6
Innovation & Enterprise Elective 1	4	Innovation & Enterprise Elective 2	4
Programme Elective 1	4	Programme Elective 4	4
Programme Elective 2	4	Programme Elective 5	4
Programme Elective 3	4	UE	4
Sub-total	22	Sub-total	22

^ Students in this Second Major are highly recommended to read DTK1234 Design Thinking or EG1311 Design and Make as an Interdisciplinary Module before taking the Group A module.

* Students in UTCP and RVRC will need to overload in Semesters 2 to 4 in order to clear this module earlier.

Recommended semester schedule

(for students in year-long NOC programmes)

Semester 1	MCs	Semester 2	MCs
BT1101 Introduction to Business Analytics	4	BT2102 Database Management and Visualization	4
CS1010S Programming Methodology	4	CS2030 Programming Methodology II	4
IS1108 Digital Ethics and Data Privacy	4	IS2101 Business and Technical Communication	4
MA1311 Matrix Algebra or MA2001 Linear Algebra I	4	MA1312 Calculus with Applications or MA1521 Calculus for Computing	4
Interdisciplinary Module 1 ^	4	Group A module for Second Major	4
Sub-total	20	Sub-total	20

Semester 3	MCs	Semester 4	MCs
BT2101 Econometrics Modeling for Business Analytics	4	BT3103 Application Systems Development for Business Analytics	4
CS2040 Data Structures and Algorithms	4	IS3103 Information Systems Leadership and Communication	4
ST2334 Probability and Statistics	4	GE	4
GE	4	GE	4
Group B module for Second Major	4	EG3301R DCP Project	6
Sub-total	20	Sub-total	22

Semester 5	MCs	Semester 6 – NOC	MCs
EG3301R DCP Project	6	NOC	
BT4103 Business Analytics Capstone Project	8		
Interdisciplinary Module 2	4		
GE*	4		
Sub-total	22	Sub-total	20

Semester 7 – NOC	MCs	Semester 8	MCs
NOC		Programme Elective 1	4
		Programme Elective 2	4
		Programme Elective 3	4
		Programme Elective 4	4
Sub-total	20	Sub-total	16

^ Students in this Second Major are highly recommended to read DTK1234 Design Thinking or EG1311 Design and Make as an Interdisciplinary Module before taking the Group A module.

* Students in UTCP and RVRC will need to overload in Semesters 2 to 4 in order to clear this module earlier.

A year-long NOC programme comprises the following modules:

- TR3201N Entrepreneurship Practicum (8 MCs) – replaces EG4301A (4 MCs out of 12 MCs) and one Business Analytics programme elective (4 MCs)
- TR3202N Start-up Internship Programme (12 MCs) – replaces IS4010 Industry Internship Programme (12 MCs)
- TR3203N Start-up Case Study and Analysis (8 MCs) – replaces EG4301A (8 MCs out of 12 MCs)
- Entrepreneurship courses (up to 12 MCs) – replaces Innovation & Enterprise electives (up to 8 MCs) while the rest are counted as UE

Recommended semester schedule
(for students in one-semester NOC programmes)

Semester 1	MCs	Semester 2	MCs
BT1101 Introduction to Business Analytics	4	BT2102 Database Management and Visualization	4
CS1010S Programming Methodology	4	CS2030 Programming Methodology II	4
IS1108 Digital Ethics and Data Privacy	4	IS2101 Business and Technical Communication	4
MA1311 Matrix Algebra or MA2001 Linear Algebra I	4	MA1312 Calculus with Applications or MA1521 Calculus for Computing	4
Interdisciplinary Module 1 [^]	4	Group A module for Second Major	4
Sub-total	20	Sub-total	20

Semester 3	MCs	Semester 4	MCs
BT2101 Econometrics Modeling for Business Analytics	4	BT3103 Application Systems Development for Business Analytics	4
CS2040 Data Structures and Algorithms	4	IS3103 Information Systems Leadership and Communication	4
ST2334 Probability and Statistics	4	GE	4
GE	4	GE	4
Group B module for Second Major	4	EG3301R DCP Project	6
Sub-total	20	Sub-total	22

Semester 5	MCs	Semester 6 – NOC	MCs
EG3301R DCP Project	6	NOC	
BT4103 Business Analytics Capstone Project	8		
Interdisciplinary Module 2	4		
GE*	4		
Sub-total	22	Sub-total	20

Semester 7	MCs	Semester 8	MCs
EG4301 DCP Dissertation or EG4301A Ideas to Start-up	6	EG4301 DCP Dissertation or EG4301A Ideas to Start-up	6
Programme Elective 1	4	Programme Elective 4	4
Programme Elective 2	4	Programme Elective 5	4
Programme Elective 3	4	UE	4
Sub-total	18	Sub-total	18

[^] Students in this Second Major are highly recommended to read DTK1234 Design Thinking or EG1311 Design and Make as an Interdisciplinary Module before taking the Group A module.

* Students in UTCP and RVRC will need to overload in Semesters 2 to 4 in order to clear this module earlier.

A one-semester NOC programme comprises the following modules:

- TR3202S Start-up Internship Programme (12 MCs) – replaces IS4010 Industry Internship Programme (12 MCs)
- TR3204 Entrepreneurship Practicum (4 MCs) – replaces Innovation & Enterprise Elective 1
- Entrepreneurship course (4 MCs) – replaces Innovation & Enterprise Elective 2