College of Computing
計算學院

Department of Data Science
數據科學系

香港城市大學
City University of Hong Kong

Bachelor of Science in Data and Systems Engineering
理學士（數據與系統工程）

Student Handbook
2026-2027

(Please note that the information given in this Handbook is accurate at the time of printing in September 2026. Changes to the information may be made from time to time without prior notification.)

For further information, please contact:

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Lau Ming Wai Academic Building
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BACHELOR OF SCIENCE IN

DATA AND SYSTEMS ENGINEERING (BSC DSE)

Student Handbook (2026-2027)

Contents Page

1 AIMS OF MAJOR

Aims to equip students with strong analytical and decision-making skills in *analyzing*, *managing*, and *improving* nowadays *enterprise class systems* via offering solid disciplines in data science and intelligent systems. An *enterprise* under consideration can mean an engineering, business, governmental, or service-oriented organization. The targets of management and improvement can be the strategies, *operations* and supply chain of an enterprise, and the *products* and *services* offered by an enterprise. A BSC DSE student is nurtured to become an analytical and versatile graduate, competent in collecting, analyzing and interpreting large data and transforming the massive information into relevant insights for making better decisions in his or her organization.

In addition to the general education studies and language proficiency, to equip BSC DSE graduates with the competence needed, this Major includes the following core and elective components:

- University level mathematics and essential computer studies;
- Core components – (a) a broad understanding of the principles, techniques, and problem-solving skills in statistics, machine learning, artificial intelligence, optimization, and information technology, as a way to obtain and analyze information from large enterprise datasets, data streams and complex systems. (b) fundamental concepts and techniques in systems/enterprise engineering and management;
- Elective components – more advanced concepts and techniques in FinTech & Decision Analytics, in Industrial Artificial Intelligence, and in Smart City;
- Problem solving, teamwork and integration skills development;
- Purposefully designed courses that infuse CityUHK's unique discovery-enriched curriculum (DEC) concept.

Intended Learning Outcomes of Major (MILOs)

Upon successful completion of this Major, a BSc DSE graduate should be able to:

1. Apply knowledge of mathematics, science and engineering into analysing and improving enterprise systems.
2. Design and conduct experiments, and analyse and interpret data that are relevant to processes including operations, marketing, finance, supply chain, etc. in an enterprise system.
3. Design processes, systems, products and services to meet desired needs within realistic constraints such as market, economics, technology, environment and sustainability.
4. Function effectively and responsibly in multi-disciplinary teams.
5. Identify, evaluate, formulate, solve problems relevant to the operations, logistics, finance, supply chain in an enterprise, and undertake projects of discovery and innovation.
6. Understand professional and ethical responsibility.
7. Communicate effectively.
8. Have knowledge in contemporary issues and an awareness of the impact of engineering and management solutions in a broad, global and societal context.
9. Recognise the need for, and an ability to engage in life-long learning.
10. Use necessary data science, engineering, and IT skills and tools for engineering and management practice, discovery and innovation.

2 DEGREE REQUIREMENT

2.1 Minimum Number of Credit Units Required for the Award and Maximum Number of Credit Units Permitted

Degree Requirements	**Normative 4-year Degree (ACT stream)**	**Normative 4-year Degree**	**Advanced Standing I**	**Advanced Standing II (Senior-year Entry)**
Gateway Education requirement *	31 credit units	31 credit units	22 credit units	12 credit units
College/School requirement *	8 credit units	8 credit units	N/A	N/A
Major requirement	73 credit units (Core: 58 Elective: 15)	73 credit units (Core: 49 Elective: 24)	59 credit units (Core: 41 Elective: 18)	56 credit units (Core: 38 Elective: 18)
Free electives / Minor (if applicable)	9 credit units	9 credit units	12 credit units	N/A
Minimum number of credit units required for the award	**121 credit units**	**121 credit units**	**93 credit units**	**68 credit units**
Maximum number of credit units permitted	**144 credit units**	**144 credit units**	**114 credit units**	**84 credit units**

** For details, please refer to the Curriculum Information Record for Common Requirements.*

Normal and Maximum Period of Study

	Normative 4-year Degree (ACT stream)	**Normative 4-year Degree**	**Advanced Standing I (Note 1)**	**Advanced Standing II (Senior-year Entry) (Note 2)**
Normal period of study	4 years	4 years	3 years	2 years
Maximum period of study	8 years	8 years	6 years	5 years

Note 1: For students holding 13-year school-leaving qualifications or equivalent.

Note 2: For Associate Degree/Higher Diploma graduates admitted to the senior year.

2.2 Gateway Education

(Please refer to *https://www.cityu.edu.hk/edge/ge*)

Requirements	**Normative 4-year Degree**	**Advanced Standing I**	**Advanced Standing II**
University requirements			
English			
• GE1401 University English	3 credit units	3 credit units	Not a compulsory requirement
• Discipline-specific English	3 credit units	3 credit units	3 credit units
GE1501 Chinese Civilisation – History and Philosophy	3 credit units	3 credit units	Not a compulsory requirement
GE1601 Whole-Person Development	1 credit units	1 credit units	Not a compulsory requirement
Distributional requirements Area 1: Arts and Humanities Area 2: Study of Societies, Social and Business Organisations Area 3: Science and Technology	12 credit units *(At least one course from each of the three areas)*	6 credit units *(From two different areas)*	3 credit units
College/School-specified courses ^	9 credit units	6 credit units	6 credit units
Total	**31 credit units**	**22 credit units**	**12 credit units**

^College/School-specified courses for fulfilling the Gateway Education requirement

Course Code	Course Title	Level	Credit Units	Remarks
Normative 4-year Degree				
CS1315	Introduction to Computer Programming	B1	3	
DSC2003	Human Contexts and Ethics in Data Science	B2	3	
CS3402	Database Systems	B3	3	
Advanced Standing I and Advanced Standing II (Senior-year Entry)				
CS3402	Database Systems	B3	3	
Choose any ONE of the following list:				
CB2100	Introduction to Financial Accounting	B2	3	
CB2201	Operations Management	B2	3	
CB2300	Management	B2	3	
CB2400	Microeconomics	B2	3	
CB2500	Information Management	B2	3	
CB2601	Marketing	B2	3	
CB3410	Financial Management	B3	3	

2.3 English Language Requirement

Normative 4-year degree students and Advanced Standing I students who passed the 6 credit units of specified GE English courses, and Advanced Standing II students who passed the 3 credit units of discipline-specific GE English course are recognized as fulfilling the University's English Language Requirement.

Students scoring below Level 4 in HKDSE English Language or Grade D in HKALE AS-level Use of English or students who do not possess an equivalent qualification are required to complete two 3-credit unit courses, EL0200A English for Academic Purposes 1 and EL0200B English for Academic Purposes 2, prior to taking the GE English courses. Students who demonstrate that they have achieved a grade B or above in their overall course results for EL0200A will achieve 3 credits and also be considered to have satisfied the pre-requisite for entry to the GE English courses without needing to take EL0200B. The credit units of EL0200A and EL0200B will not be counted towards the minimum credit units required for graduation and will not be included in the calculation of the cumulative grade point average (CGPA). However, they will be counted towards the maximum credit units permitted.

2.4 Chinese Language Requirement

Students scoring below Level 4 in HKDSE Chinese Language, or below Grade D in HKALE AS-level Chinese Language and Culture will be required to complete a 3-credit unit course CHIN1001 University Chinese I. The 3 credit units will not be counted towards the minimum credit units required for graduation and will not be included in the calculation of the cumulative grade point average (CGPA). However, they will be counted towards the maximum credit units permitted.

In addition to the above requirement, Colleges/Schools also have the discretion to specify other Chinese language courses for their students, including students who do not possess the above qualifications (Senate/70/MM27-28 refers). Please indicate if there are such requirements.

2.5 College/School Requirement

Course Code	Course Title	Level	Credit Units	Remarks
Normative 4-year Degree (8 credit units)				
MA1503	Linear Algebra with Applications	B1	4	
MA1508	Calculus	B1	4	
Advanced Standing I (0 credit unit)				
College Requirement waived.				
Advanced Standing II (Senior-year Entry) (0 credit unit)				
College Requirement waived.				

2.6 Major Requirement

2.6.1 Core Courses

- Normative 4-year Degree (ACT stream): 58 credit units
- Normative 4-year Degree: 49 credit units
- Advanced Standing I : 41 credit units
- Advanced Standing II: 38 credit units

Course Code	**Course Title**	Level	Credit Units	Remarks
PHY1201	General Physics I	B1	3	Waived for students admitted into ASI and ASII.
DSC1001	Introduction to Data Science	B1	2	Waived for students admitted into ASI and ASII.
GE2339	Smart City – a Systems Engineering Perspective	B2	3	Waived for students admitted into ASI and ASII.
MA2508	Multi-variable Calculus	B2	4	
MA2510	Probability and Statistics	B2	3	Waived for students admitted into ASII.
DSC2001	Python for Data Science	B2	4	
DSC2002	Convex Optimization	B2	3	
DSC2004	Data Visualization	B2	3	
DSC2102	Statistical Methods and Data Analysis	B2	3	
DSC3002	Data Mining	B3	3	
DSC3006	Fundamentals of Machine Learning I	B3	3	
DSC3008	Systems Dynamics and Control	B3	3	
DSC3025	Internship for Flagship Programme	B3	3	ACT stream only
DSC3026	International Professional Development	B3	3	ACT stream only
DSC3060	Operations Research	B3	3	
DSC4016	Fundamentals of Machine Learning II	B4	3	ACT stream only
CS4480	Data-Intensive Computing	B4	3	
DSC4116	Data Science Capstone	B4	6	

2.6.2 Electives for all normative 4-year degree, ASI and ASII students

- Normative 4-year Degree (ACT stream): 15 credit units
- Normative 4-year Degree: 24 credit units
- Advanced Standing I and II: 18 credit units

Course Code	Course Title	Level	Credit Units	Categories	Remarks
DSC0001	Internship	B1	0	General	
DSC0002	Internship	B1	0	General	
DSC0003	Internship	B1	0	General	
DSC0004	Internship	B1	0	General	
CS2334	Data Structures for Data Science	B2	3	General	
CS3201	Computer Networks	B3	3	Industrial Artificial Intelligence	
CS3273	Data Protection and System Security	B3	3	Industrial Artificial Intelligence	
CS3342	Software Design	B3	3	General	
CS3383	AI for Software Engineering	B3	3	General	
LT3233	Computational Linguistics	B3	3	General	
DSC3001	Big Data: The Arts and Science of Scaling	B3	3	Industrial Artificial Intelligence	
DSC3003	Blockchain	B3	3	FinTech & Decision Analytics	
DSC3004	Computational Optimization	B3	3	Industrial Artificial Intelligence	
DSC3013	Introduction to Social Media Analytics	B3	3	General	
DSC3014	Introduction to Sharing Economy	B3	3	Smart City	
DSC3018	Introduction to Internet of Things	B3	3	Smart City	
DSC3019	Introduction to Networked Life and Data Science	B3	3	Smart City	
DSC3020	Engineering Economics	B3	3	FinTech & Decision Analytics	
DSC3022	Financial Data Analytics for Investments	B3	3	FinTech & Decision Analytics	
DSC3023	Data Science Applications in Portfolio Risk Analysis	B3	3	FinTech & Decision Analytics	
DSC3027	Smart Logistics and Transportation	B3	3	Smart City	

DSC3080	Internship	B3	3	General	Not available for ACT stream
DSC3102	Quality Technologies	B3	3	General	
DSC3105	Bayesian Analysis	B3	3	General	
CS4286	Internet Security and e-Commerce Protocols	B4	3	FinTech & Decision Analytics	
CS4486	Artificial Intelligence	B4	3	Industrial Artificial Intelligence	
DSC4001	Foundation of Reinforcement Learning	B4	3	General	
DSC4009	Data Intelligence in Action	B4	3	Industrial Artificial Intelligence	
DSC4016	Fundamentals of Machine Learning II	B4	3	Industrial Artificial Intelligence	Core course for ACT stream
DSC4018	AI in Systematic Trading	B4	3	FinTech & Decision Analytics	
DSC4021	Advanced Internet of Things	B4	3	Industrial Artificial Intelligence	
DSC4024	Project Management and Analysis	B4	3	FinTech & Decision Analytics	
DSC4026	Systems Modelling and Simulation	B4	3	Industrial Artificial Intelligence	
DSC4051	Facilities and Distribution Management	B4	3	Smart City	
DSC4064	Reliability Engineering	B4	3	General	
DSC4070	Large Language Models	B4	3	General	
DSC4103	Decision Analytics and Risk Management	B4	3	FinTech & Decision Analytics	
DSC4107	Financial Engineering and Analytics	B4	3	FinTech & Decision Analytics	
DSC4109	Smart Manufacturing and Automation	B4	3	Smart City	
DSC4110	Statistical Design and Analysis of Experiments	B4	3	General	

2.7 Assessment Policy

For courses offered by DS which comprise both coursework and examination assessment components, apart from obtaining a minimum 40% in the overall mark, a student must also obtain a minimum mark of 30% in both coursework and examination in order to pass a course.

2.8 Classification of Award

The University grants bachelor's degree awards with the following classifications based on the CGPAs according to the general guidelines below:

Classification	**CGPA**
First Class Honours	3.50 or above
Upper Second Class Honours	3.00 - 3.49
Lower Second Class Honours	2.50 - 2.99
Third Class Honours	2.00 - 2.49
Pass	1.70 - 1.99

For more details, please go to https://www.cityu.edu.hk/arro/regu/regu_ugar.htm

2.9 Bonus Features

Student Exchange/Internship

The Department provides student exchange and internship opportunities to our students to gain international perspectives, global engagement and industry experience.

Students may choose between the overseas student exchange opportunities at world-leading institutions provided by the Department or the University. Paying the tuition at CityU, students will spend a study semester abroad and may transfer the academic credits earned at the host institution to fulfil the graduation requirement.

The Department also partners with premier corporates in a wide range of sectors to offer internship opportunities relevant to our majors. With these placements, students are expected to gain practical knowledge and hands-on experience in real-world applications.

3 ACADEMIC REGULATIONS AND GUIDELINES

Students should observe the University's academic regulations and guidelines at all times. More information can be available by referring to the following websites maintained by the Academic Regulations and Records Office (ARRO).

ARRO Homepage: *http://www.cityu.edu.hk/arro/*

4 ACADEMIC HONESTY

Academic honesty is central to the conduct of academic work. Students are responsible for knowing and understanding the Rules on Academic Honesty. To enhance students' understanding on academic honesty, all students are required to complete a tutorial on academic honesty and make a declaration on their understanding of this core academic principle online on or before **30**

November 2026 in order to access their course grades. For details, please refer to the website: *https://www.cityu.edu.hk/pvdp/ah/uni-ah-req.htm.*

5 STUDENT CONDUCT

City University of Hong Kong aims to provide a harmonious and supportive environment for teaching and learning. Students are expected to treat all other students and members of the University community with honesty, respect and maintain good conduct in student discipline. Students need to observe the Code of Student Conduct and other rules and regulations which are crucial in making the University an excellent place for learning.

For details of these rules and regulations, please refer to the website
https://www.cityu.edu.hk/studentlife/about_us-sdc.aspx

6 STUDENT DEVELOPMENT SERVICES (SDS)

The SDS offers many student-centred services to students. It provides support and assistance for students in the following areas:

- Attainment of an all-round development
- Enrichment of campus life
- Development of career plans and choices
- Solving personal problems
- Enhancement of physical and mental well-being
- Provision of financial assistance
- Scholarship application
- Welfare provisions

7 COMMUNICATIONS

Listed below are the normal channels of communication between students and courses / major / department:

a) Students having difficulties in a course of study should first talk to the course instructor concerned.
b) A student who wishes to discuss the overall organization of the major should speak to the Programme Leader or Deputy Programme Leader.
c) The DS Joint Staff & Student Consultative Committee helps to facilitate consultation and communication. A student from each entry cohort will be elected to sit in the Committee.
d) In addition, a student from each entry catalogue term will be elected to sit in the Major Programme Committee which meets every semester to discuss major-related matters.
e) Students should feel free to approach their respective academic advisors for advice regarding their study plan or personal and career development.

8 PROGRAMME LEADERS

Programme Leader:	Professor LI, Xinyue	3442-2180	xinyueli@cityu.edu.hk
Deputy Programme Leader:	Professor PANG, Hao	3442-2587	haopeng@cityu.edu.hk

9 INFORMATION TO NEW STUDENTS

9.1 How to access your Personal Class Schedule

i) Go to ***http://www.cityu.edu.hk*** from any terminal on campus or off campus, then point to "**Quick Links**" at the top and click "**AIMS**".
ii) Log onto AIMS.
iii) Click "Course Registration" menu.
iv) Click "Main Menu for Wed Add/Drop"
v) Click "Weekly Schedule", choose the appropriate term and press "Submit".
vi) You will find your class schedule in matrix form.
vii) Press the "View Detail Schedule" button at the bottom of your matrix timetable to display details of your class schedule.

9.2 How to get Instructors' handouts through Canvas

i) Log onto the CityU e-Portal from any terminal on campus or off campus.
ii) Enter the course under "My Courses"
iii) Click "Files".

9.3 How to check Major Programme Requirement and Course Syllabi

Go to the CityUHK home page, select "Academics" from the top menu and click "Programme and Course Catalogues".

9.4 Course Registration for Semester A 2026-27

For Semester A 2026-27, students will be pre-registered in required courses and major electives in most cases if possible.

i) The date for release of your class schedule is **28 July 2026**. Please check your curriculum requirements, review your study plan and then make appropriate adjustments to your pre-registered courses.
ii) Add/Drop of courses can be made through AIMS for web-enabled courses during the web registration period. For non-web-enabled courses, approval is required from the major department and you can submit your application via an electronic form available in AIMS. After logging-in AIMS, go to tab "Course Registration" and click "Application for Add/Drop of Non Web-enabled Course & Study Load Adjustment".

How to do the Add/Drop:
- Go to *http://www.cityu.edu.hk* from any terminal on campus or off campus and click "AIMS".
- Log onto "AIMS" and then click "Course Registration".
- Choose "Add or Drop Classes".
- Select and choose the correct term.

iii) Web registration begins on **24 August 2026** but you need to check your time ticket first from "AIMS".
iv) All add/drops end at **7 September 2026**.

v) Details of course registration arrangements for Semester A 2026-27 will be available near the end of July 2026. For details, please refer to ARRO website: *https://www.cityu.edu.hk/arro/creg/creg_main.htm*

9.5 How to access your Student Email Account

i) Access **http://www.cityu.edu.hk** and point to "**Quick Links**" at the top of the screen and select "**Email**".
ii) In the Email Services home page, click **"@my.cityu.edu.hk**" under column of "**Student**" to go to **M365 Web Logon**.
iii) Read through the whole page if you are not familiar with webmail. Then click button "**M365 Sign-in page**" at the bottom.
iv) Enter Sign-in ID in such format "**YourEID-c@my.cityu.edu.hk**" and click "Next".
v) Click "Sign in" after keying in password.

> ***Important notes:***
>
> For email communication:
> Please state your ***student name, number and contact telephone number***.

9.6 Credit Transfer / Course Exemption

Applications for credit exemption must be made before the first semester of the student's admission. Students granted course exemption are required to take other courses to make up the credits required for fulfilling the award requirements. For Semester A 2026-27, the application period is from **13 July to 28 August 2026**. For details, please refer to ARRO website: *https://www.cityu.edu.hk/arro/cdtf/cdtf_main.htm*.

9.7 Administrative Support from General Office

Counter Services Hours	
Mon to Fri	9:00am to 12:30 pm
	2:00pm to 5:30pm
Sat, Sun & Public Holiday	Closed
Inquiry:	3442-7887
Fax:	3442-0173
Email:	ds.go@cityu.edu.hk

Appendix I : Model Study Paths

For Reference Only

Model Study Path for BSc in Data and Systems Engineering 2026/27 (normative 4-year)

Yr	Sem	Major Requirements					University Requirements			CUs
2026 / 27 (Year 1)	A	College Requirement - MA1508 Calculus (4)	College Specified - CS1315 Introduction to Computer Programming (3)	DSC1001 Introduction to Data Science (2)			English 1 – GE1401 University English (3)	GE1601 Whole-Person Development (1)	Gateway Education 1 (3)	**16**
	B	College Requirement - MA1503 Linear Algebra with Applications (4)	DSC2004 Data Visualization (3)	GE2339 Smart City – a Systems Engineering Perspective (3)			English 2 - Discipline-specific English GE2410 English for Engineering (3)		Gateway Education 2 (3)	**16**
	S									
2027 / 28 (Year 2)	A	MA2510 Probability and Statistics (3)	MA2508 Multi-variable Calculus (4)	DSC2001 Python for Data Science (4)	PHY1201 General Physics I (3)				Gateway Education 3 (3)	**17**
	B	College Specified - CS3402 Database Systems (3)	DSC2002 Convex Optimization (3)	DSC2102 Statistical Methods and Data Analysis (3)	DSC3060 Operations Research (3)		GE1501 Chinese Civilisation – History and Philosophy (3)			**15**
	S									**0**
2028 / 29 (Year 3)	A	DSC3006 Fundamentals of Machine Learning I (3)	DSC3008 Systems Dynamics and Control (3)	Major Elective 1 (3)	Major Elective 2 (3)				Gateway Education 4 (3)	**15**
	B	DSC3002 Data Mining (3)	Major Elective 3 (3)	Major Elective 4 (3)	Major Elective 5 (3)	Free Elective 1 (3)				**15**
	S									**0**
2029 / 30 (Year 4)	A	DSC4116 Data Science Capstone (3)	CS4480 Data-Intensive Computing (3)	Major Elective 6 (3)	Major Elective 7 (3)	Free Elective 2 (3)				**15**
	B	DSC4116 Data Science Capstone (3)	DSC2003 Human Contexts and Ethics in Data Science (3)	Major Elective 8 (3)	Free Elective 3 (3)					**12**
( ) indicates number of credit units									**Total credits required = 121**	

For Reference Only

Model Study Path for BSc in Data and Systems Engineering 2026/27 (Advanced Standing I)

Yr	Sem	Major Requirements					University Requirements		CUs
2026 / 27 (Year 2)	A	MA2510 Probability and Statistics (3)	MA2508 Multi-variable Calculus (4)	DSC2001 Python for Data Science (4)			English 1 – GE1401 University English (3)	GE1601 Whole-Person Development (1)	**15**
	B	DSC2102 Statistical Methods and Data Analysis (3)	College Specified - CS3402 Database Systems (3)	DSC2004 Data Visualization (3)	DSC2002 Convex Optimization (3)		English 2 – Discipline-specific English GE2410 English for Engineering (3)		**15**
	S								
2027 / 28 (Year 3)	A	DSC3008 Systems Dynamics and Control (3)	DSC3006 Fundamentals of Machine Learning I (3)	Major Elective 1 (3)	Free Elective 1 (3)		GE1501 Chinese Civilisation – History and Philosophy (3)	Gateway Education 1 (3)	**18**
	B	DSC3060 Operations Research (3)	DSC3002 Data Mining (3)	Major Elective 2 (3)	Free Elective 2 (3)		College-specified course (3) *Any courses in the list of College Specified courses for ASI & II*		**15**
	S								**0**
2028 / 29 (Year 4)	A	DSC4116 Data Science Capstone (3)	CS4480 Data-Intensive Computing (3)	Major Elective 3 (3)	Major Elective 4 (3)		Gateway Education 2 (3)		**15**
	B	DSC4116 Data Science Capstone (3)	Major Elective 5 (3)	Major Elective 6 (3)	Free Elective 3 (3)	Free Elective 4 (3)			**15**
	S								**0**
( ) indicates number of credit units									**Total credits required = 93**

[Note]

1. For courses that required MA1508 Calculus and MA1503 Linear Algebra with Applications as pre-requisite/precursor, this requirement is waived as
   MA1508 & MA1503 are not in the Advanced Standing I curriculum – Pre-requisite MA1508 & MA1503 wavied for ---
   MA2508 Multi-variable Calculus
   MA2510 Probability and Statistics
   DSC4103 Decision Analytics and Risk Management Precursor
   MA1508 wavided for --
   DSC3060 Operations Research
2. For courses that required DSC1001 Introduction to Data Science as pre-requisite/precursor, this requirement is waived as DSC1001 is not in the Advanced Standing I curriculum –
   Pre-requisite DSC1001 wavied for ---
   DSC2001 Python for Data Science

For Reference Only

Model Study Path for BSc in Data and Systems Engineering 2026/27 (Advanced Standing II)

Yr	Sem	Major Requirements					University Requirements	CUs
2026 / 27 (Year 3)	A	MA2508 Multi-variable Calculus (4)	DSC2001 Python for Data Science (4)	DSC3006 Fundamentals of Machine Learning I (3)	Major Elective 1 (3)		Gateway Education 1 (3)	**17**
	B	DSC2002 Convex Optimization (3)	DSC2004 Data Visualization (3)	DSC2102 Statistical Methods and Data Analysis (3)	DSC3002 Data Mining (3)	DSC3060 Operations Research (3)	Discipline-specific English GE2410 - English for Engineering (3)	**18**
	S							
2027 / 28 (Year 4)	A	DSC4116 Data Science Capstone (3)	DSC3008 Systems Dynamics and Control (3)	CS4480 Data-Intensive Computing (3)	Major Elective 2 (3)	Major Elective 3 (3)	College Specified - CS3402 Database Systems (3)	**18**
	B	DSC4116 Data Science Capstone (3)	Major Elective 4 (3)	Major Elective 5 (3)	Major Elective 6 (3)		College-specified course (3) *Any courses in the list of College Specified courses for ASI & II*	**15**
( ) indicates number of credit units							**Total credits required = 68**	

[Note]

1. For courses that required MA1508 Calculus and MA1503 Linear Algebra with Applications Calculus as pre-requisite/precursor, this requirement is waived as MA1508 & MA1503 are not in the Advanced Standing II curriculum – Pre-requisite MA1508 & MA1503 wavied for ---
   MA2508 Multi-variable Calculus
   DSC4103 Decision Analytics and Risk Management Precursor
   MA1508 wavided for --
   DSC3060 Operations Research
2. For courses that required DSC1001 Introduction to Data Science as pre-requisite/precursor, this requirement is waived as DSC1001 is not in the Advanced Standing II curriculum – Pre-requisite DSC1001 wavied for ---
   DSC2001 Python for Data Science

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