

GE Requirements (39 credit units)	+	College / School Requirements (12 credit units)	+	Major Requirements, including (99 credit units)	=	Total (150 credit units)
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**Catalogue Term 2023-24****2023-2024 (1<sup>st</sup> Year)**

Semester A		Units	Semester B		Units	Total
CB2100	Introduction to Financial Accounting	3	CB2402	Macroeconomics	3	
CB2400	Microeconomics	3	CB3410	Financial Management	3	
CS1302	Introduction to Computer Programming	3	CS2310	Computer Programming	3	
CS2204	Fundamentals of Internet Applications Development	3	GE2410 or GE2402	English for Engineering or English for Business Communication	3	
GE1401	University English	3	MA1201 or MA1301	Calculus and Basic Linear Algebra II or Enhanced Calculus and Linear Algebra II	3	
MA1200 or MA1300	Calculus and Basic Linear Algebra I or Enhanced Calculus and Linear Algebra I	3				
		18			15	33

**2024-2025 (2<sup>nd</sup> Year)**

Semester A		Units	Semester B		Units	Total
CS2115	Computer Organization	3	JC2066	IT Professionals: Ethical, Legal and Social Issues	3	
CS2312	Problem Solving and Programming	3	CS3342	Software Design	3	
CS3402	Database Systems	3	EF4313	Corporate Finance	3	
EF3320	Security Analysis and Portfolio Management	3	MA2510	Probability and Statistics	3	
MA2001	Multi-variable Calculus and Linear Algebra	3	MA3511	Ordinary Differential Equations	3	
MA2185	Discrete Mathematics	3	MS3601	Optimization Methods	3	
		18			18	36

**2025-2026 (3<sup>rd</sup> Year)**

Semester A		Units	Semester B		Units	Total
CS2611	Seminars on Contemporary Technology I	0	CS2611	Seminars on Contemporary Technology I	1	
CS3201	Computer Networks	3	CS3334	Data Structures	3	
EF3520	Stochastic Calculus for Finance	3	EF4820	Derivatives Pricing I: Stock and FX	3	
EF4321	Derivatives and Risk Management	3	EF4822	Financial Econometrics	3	
MS2602	Statistical Inference	3	GE1501	Chinese Civilisation - History and Philosophy	3	
MS3252	Regression Analysis	3				
MA3525	Elementary Numerical Methods	3				
		18			13	31

**2026-2027 (4<sup>th</sup> Year)**

Semester A		Units	Semester B		Units	Total
CS3505	IT Professional Internship	6*	CS3505	IT Professional Internship	3*	
CS3343	Software Engineering Practice	3	CS3103	Operating Systems	3	
CS4335	Design & Analysis of Algorithms	3	GE-1	Gateway Education (Area) – GE (1)	3	
			CS-E	CS Elective	3	
		12			12	24

**2027-2028 (5<sup>th</sup> Year)**

Semester A		Units	Semester B		Units	Total
CB4001	Honor Thesis	3	CS4514A	Project	6	
EN4262	English Communication Skills for Computing	2	EF4328	Asset Management	3	
EF4821	Derivatives Pricing II: Interest Rate and Credit Risk	3	GE-4	Gateway Education (Area) – GE (4)	3	
GE-2	Gateway Education (Area) – GE (2)	3				
GE-3	Gateway Education (Area) – GE (3)	3				
		14			12	26

Total Credit Units: 150 (minimum graduation requirement)

Maximum Credit Units: 180 (student may take a minor or opt to take more free electives provided that they have not yet reached the maximum credit limit or maximum period of study permitted.)

**Elective:** (minimum 3 credit units from the following electives)

CS3185	Computer Architecture	CS4293	Topics in Cybersecurity
CS3283	Distributed Systems	CS4295	Mobile Application Programming
CS3346	Software Testing and Maintenance	CS4296	Cloud Computing
CS3356	Managing Software Projects	CS4297	Cloud Robotics and Automation
CS3382	Web Usability Design and Engineering	CS4298	iOS Application Development
CS3391	Advanced Programming	CS4348	Software Quality Management
CS3481	Fundamentals of Data Science	CS4367	Computer Games Design
CS3483	Multimodal Interface Design	CS4381	Advanced Software Design
CS4182	Computer Graphics	CS4385	Topics in Software Engineering
CS4185	Multimedia Technologies and Applications	CS4386	AI Game Programming
CS4186	Computer Vision and Image Processing	CS4389	Decentralized Applications Development
CS4187	Computer Vision for Interactivity	CS4394	Information Security and Management
CS4188	Virtual Reality	CS4480	Data-Intensive Computing
CS4280	Advanced Internet Applications Development	CS4482	Advanced Database Systems
CS4284	Mobile Computing	CS4485	Information Retrieval
CS4285	High Speed Multimedia Networks	CS4486	Artificial Intelligence
CS4286	Internet Security and E-Commerce Protocols	CS4487	Machine Learning
CS4288	Cryptographic Algorithms and Protocols	CS4552	Guided Study
CS4289	Pervasive Computing		

Remarks:

\* Partial credit units for year-long courses, granted only if completing the whole course.

Please refer to the curriculum page for more information including Prerequisite and Precursor requirements of individual courses:

[https://www.cityu.edu.hk/catalogue/ug/current/DoubleDegree/DBSCBSC\\_D004-4.htm](https://www.cityu.edu.hk/catalogue/ug/current/DoubleDegree/DBSCBSC_D004-4.htm)

*Updated on 12 June 2024*