

List of Courses for the CGPA Computation of **BEng (Computer Engineering)
under the Double Degree Programme in Business and Computer Engineering (BCE)**

BEng (Computer Engineering)				AU Load	
Discipline Requirement	Core	SC1003	Introduction to Computational Thinking & Programming	3	
		SC1004	Linear Algebra for Computing	3	
		SC1005	Digital Logic	3	
		SC1006	Computer Organisation and Architecture	3	
		SC1007	Data Structures & Algorithms	3	
		SC1013	Physics for Computing	2	
		EG1001	Engineers in Society	2	
		MH1810	Mathematics I	3	
		MH1812	Discrete Mathematics	3	
		SC2000	Probability and Statistics for Computing	3	
		SC2001	Algorithm Design and Analysis	3	
		SC2002	Object Oriented Design and Programming	3	
		SC2103	Digital System Design	3	
		SC2104	Sensors, Interfacing & Digital Control	3	
		SC2005	Operating Systems	3	
		SC2006	Software Engineering	3	
		SC2107	Microprocessor System Design & Development	3	
		SC2008	Computer Networks	3	
		SC2079	Multidisciplinary Design Project	4	
		SC3102	Signal, Systems and Transform	3	
	SC3103	Embedded Programming	3		
	SC4079	Final Year Project	8		
				(70)	
		Major PE	SC4xxx	Major Prescribe Elective (MPE-a)	3
			SC4xxx	Major Prescribe Elective (MPE-b)	3
	SC4xxx		Major Prescribe Elective (MPE-c)	3	
	SC4xxx		Major Prescribe Elective (MPE-d) ¹	3	
				(12)	

Interdisciplinary Collaborative Core (ICC)	Common Core (CC)	CC0001	Inquiry and Communication in an Interdisciplinary World	2
		CC0002	Navigating the Digital World	2
		CC0003	Ethics & Civics in a Multi-Cultural World	2
		ML0004	Career & Entrepreneurial Development for the Future World	2
		CC0005	Healthy Living & Wellbeing	3
		CC0006	Sustainability: Human Society Economic & Environment	3
		CC0007	Science & Technology for Humanity	3
				(17)
	Foundational Core (FC)	HW0288	Engineering Communication II ²	2/4 ²
		SC1015	Introduction to Data Science & AI	3
		SC3079	Professional Internship ³	10
				(15/17)
	Broadening & Deepening Electives	Bxxxxx	BA/CE Integration ⁴	3
		Bxxxxx	BA/CE Integration ⁴	3
		BC2402	Designing & Developing Databases ⁵	3
		BC2406	Analytics I: Visual and Predictive Analytics ⁵	3/4
		BC2407	Analytics II: Advanced Predictive Analytics ⁵	3/4
		HE5091	Principles of Economics ⁵	3
		AB1501	Marketing ⁵	3
			(21/23)	
	Grand Total			

⁺Total AU is 4AU more than the proposed BEng(CE) single degree programme under NTU ICC due to fulfillments of courses from BUS programme as indicated below.

¹One SC4xxx MPE (3AU) and 6AU of BDE are jointly fulfilled by

- three BA/CE Integration PEs (9AU)

BA/CE Integration PE*# (BC-PE, 3AU each)		
*Students to choose any 3 courses below (as of July 2021)		
#One of these BC-PE courses will be counted as Major PE		
• BT2404	Service Operations Management	3
• BC2409	BC2409 Supply Chain Analytics	3
• BC3410	BC3410 Financial Service Processes and Analytics	3
• BC3411	Lean Operations & Analytics	3
• BC3412	Business Analytics Consulting	3
• BC3415	BC3415 AI in Accounting and Finance	3

²HW0288 Engineering Communication II (2AU) is fulfilled by:

- AB0602 Communication Management Strategy (4AU)

³SC3079 Professional Internship (10AU) is jointly fulfilled by

- AB1003 Professional Attachment (5AU)
- AB2008 Career Readiness (1AU)
- AB3602 Strategic Management (4AU)

⁴21AU of BDEs are jointly fulfilled by

- two BA/CE Integration PEs and five BA cores (23AU)

**List of Courses for the CGPA Computation of B. Bus (Business Analytics)
under the Double Degree Programme in Business and Computer Engineering (BCE)**

B. Bus (Business Analytics)				AU Load	
Discipline Requirement	Core	AD1101	Financial Accounting	3	
		AB1201	Financial Management	3	
		AB1301	Business Law	3	
		AB1202	Statistics & Analysis	3	
		AB1501	Marketing	3	
		AB1601	Organisation Behaviour and Design	3	
		HE5091	Principles of Economics	3	
		AD2101	Management Accounting	3	
		BC2402	Designing & Developing Databases	3	
		BC2406	Analytics I: Visual and Predictive Analytics	4	
		BC2407	Analytics II: Advanced Predictive Analytics	4	
		AB3601	Strategic Management	4	
		AB1403	Intermediate Excel (1AU)	Jointly fulfil by SC4079 Final Year Project (8AUs)	7/8 ¹
		BE1402	Business Operations & Process (3AU)		
	BE2602	Management Principles, Skills & Competencies (3AU)			
				(46/47)	
		MPE	Bxxxxx	BA/CE Integration 1	3
	Bxxxxx		BA/CE Integration 2	3	
	Bxxxxx		BA/CE Integration 3	3	
				(9)	
Interdisciplinary Collaborative Core	Common Core (CC)	CC0001	Inquiry and Communication in an Interdisciplinary World	2	
		CC0002	Navigating the Digital World	2	
		CC0003	Ethics & Civics in a Multi-Cultural World	2	
		ML0004	Career & Entrepreneurial Development for the Future World	2	
		CC0005	Healthy Living & Mental Wellbeing	3	
		CC0006	Sustainability: Human Society Economic & Environment	3	
		CC0007	Science & Technology for Humanity	3	
				(17)	
		Foundational Core (FC)	AB2008	Careers II	1
			AB0602	Communication Management Strategies	4
	AB0403		Decision Making with Programming & Analytics ²	3	
	AB1003		Professional Attachment	5	
				(13)	

Broadening & Deepening Electives	SC2008	Computer Networks	3
	SC3102	Signal, Systems and Transform	3
	SC3103	Embedded Programming	3
	SC4xxx	Major Prescribe Elective (MPE-a)	3
	SC4xxx	Major Prescribe Elective (MPE-b)	3
	SC4xxx	Major Prescribe Elective (MPE-c)	3
			18
		Grand Total	103/104[^]

[^] Total AU is 1AU more than the proposed BBus(BA) single degree programme under NTU ICC (Ref: CoB (NBS)-R/00126/21) due to fulfillments of courses from CE programme as indicated below.

¹ AB1403(1AU), BE1402(3AU) and BE2602 (3AU) are jointly fulfilled by:
SC4079 Final Year Project (8AU)

² AB0403 Decision Making with Programming & Analytics (3AU) is fulfilled by:
SC1015 Introduction to Data Science and Artificial Intelligence (3AU)

BA/CE Integration PE*# (BC-PE, 3AU each)		
*Students to choose any 3 courses below (as of July 2021)		
• BT2404	Service Operations Management	3
• BC2409	BC2409 Supply Chain Analytics	3
• BC3410	BC3410 Financial Service Processes and Analytics	3
• BC3411	Lean Operations & Analytics	3
• BC3412	Business Analytics Consulting	3
• BC3415	BC3415 AI in Accounting and Finance	3