

**Curriculum Structure for
BEng (CE) and BBus (with BA Specialisation) Double Degree Programme**

Applicable to students matriculated in 2017

This double degree programme is designed to be completed in 4 years with acceleration. Students can only do Professional Attachment under Nanyang Business School. There is no exemption granted to Polytechnic students.

AU requirements

Type	Total No. of AUs
Depth (CE)	83
Depth (Bus)	61
Breadth	15
Unrestricted electives	3
Grand Total	162

Accelerated 4-year Curriculum Structure for BEng (CE) and BBus (with BA Specialisation) Double Degree Programme

Course Code and Title	Type (i.e. Core/ Core elective/ GER core/ GER elective/ Unrestricted elective)	No of Hours Per Week				AU	Pre-requisite / Remarks
		Lec	Tut	Lab	Total		
YEAR 1 SEMESTER 1							
CE1011 Engineering Mathematics I	Core (CE)	2	1	1 ⁺	4	3	-
CE1012 Engineering Mathematics II	Core (CE)	2	1	1 ⁺	4	3	CE1011 (can be taken concurrently)
CE1003 Introduction to Computational Thinking	Core (CE)	2	1	1	4	3	-
CE1004 Inventions and Innovations in Computing	Core (CE)	1	1	1 ⁺	2	2	-
CE0001 Engineers & Society	GER Core	2	1	-	3	3	-
AB1202 Statistical and Quantitative Methods	Core (Bus)	3	1	-	4	3	-
AB1301 Business Law	Core (Bus)	2	1	-	3	3	-
GC0001 Introduction to Sustainability: Multidisciplinary Approaches and Solutions	GER core					1	online course
TOTAL		14	7	1+3⁺	24	21	

Course Code and Title	Type (i.e. Core/ Core elective/ GER core/ GER elective/ Unrestricted elective)	No of Hours Per Week				AU	Pre-requisite / Remarks
		Lec	Tut	Lab	Total		
YEAR 1 SEMESTER 2							
CE1005 Digital Logic	Core (CE)	2	1	1	4	3	
CE1006 Computer Organisation and Architecture	Core (CE)	2	1	1	4	3	CE1005 (can be taken concurrently)
CE1007 Data Structures	Core (CE)	2	1	1	4	3	CE1003
MH1812 Discrete Mathematics	Core (CE)	2	1	1+	4	3	-
AD1101 Financial Management	Core (Bus)	3	1	-	4	4	
AB1601 Organisation Behaviour and Design	Core (Bus)	2	1	-	3	3	-
AB0601 Communication Management Fundamentals	GER core	2	-	-	2	2	-
TOTAL		15	6	3+1+	25	21	
YEAR 2 SEMESTER 1							
CE2001 Algorithms	Core (CE)	2	1	-	3	3	MH1812, CE1012 CE1007
CE2002 Object Oriented Design and Programming	Core (CE)	2	1	1	4	3	CE1007
CE2003 Digital Systems Design	Core (CE)	2	1	1	4	3	CE1005
AD2101 Management Accounting	Core (Bus)	2	1	-	3	4	AD1101
BC2402 Data Mgt and Business Intelligence	BUS Major PE	3	1	-	4	4	
BC2406 Analytics I: Visual and Predictive Analytics	BUS Major PE	4	-	-	4	4	
HY0001 Ethics & Moral Reasoning	GER core					1	online course
TOTAL		15	5	2	22	22	
YEAR 2 SEMESTER 2							
CE2004 Circuits and Signal Analysis	Core (CE)	2	1	1	4	3	CE1012
CE2005 Operating Systems	Core (CE)	2	1	1	4	3	CE1006, CE1007
CE2006 Software Engineering	Core (CE)	2	1	1	4	3	CE2002 (can be taken concurrently)
AB1201 Financial Management	Core (Bus)	2	1	-	3	3	-
BC2407 Analytics II: Advanced Predictive Analytics	BUS Major PE	4	-	-	4	4	
Unrestricted elective	Unrestricted elective	2	1	-	3	3	
AB1000 Career Foundations I	Core (Bus)	1	-	-	1	1	
TOTAL		15	5	3	23	20	

Course Code and Title	Type (i.e. Core/ Core elective/ GER core/ GER elective/ Unrestricted elective)	No of Hours Per Week				AU	Pre-requisite / Remarks
		Lec	Tut	Lab	Total		
YEAR 3 SEMESTER 1							
CE2007 Microprocessor-based Systems Design	Core (CE)	2	1	1	4	3	CE1006, CE2004 (can be taken concurrently)
CE3001 Advanced Computer Architecture	Core (CE)	2	1	1	4	3	CE1006
CE3002 Sensors, Interfacing and Control	Core (CE)	2	1	1	4	3	CE2004
CE3005 Computer Networks	Core (CE)	2	1	1	4	3	CE1011, CE1012
AB1501 Marketing	Core (Bus)	2	1	-	3	3	-
ET0001 Enterprise & Innovation	GER core					1	online course
TOTAL		10	5	4	19	16	
YEAR 3 SEMESTER 2							
CE3003 Microcontroller Programming	Core (CE)	2	1	1	4	3	CE2005
CE3004 Multidisciplinary Design Project	Core (CE)	1	-	3	4	4	Year 3 standing
AB0602 Communication Management Strategy	GER (Core)	3	1	-	4	4	AB0601
BCxxxx Business/CS Integration 1	BUS Major PE	3	1	-	4	4	
AB2000 Career Foundations II	Core (Bus)	1	-	-	1	1	-
AB2004 Professional Attachment (Special Semester)	Core (Bus)	-	-	-	-	5	AB2000
TOTAL		10	3	4	17	21	
YEAR 4 SEMESTER 1							
CE4079 Final Year Project	Core (CE)	-	-	-	-	-	
CE3007 Digital Signal Processing	Core (CE)	2	1	1	4	3	CE2004
CE4xxx Technical Elective 1	CE Major PE	2	1	-	3	3	
CE4xxx Technical Elective 2	CE Major PE	2	1	-	3	3	
AB0901 Principles of Economics: A Singapore Perspective	Core (Bus)	2	1	-	3	3	
BCxxxx Business/CS Integration 2	BUS Major PE	3	1	-	4	4	
Science & Technology	GER elective	2	1	-	3	3	
TOTAL		13	6	1	20	19	

Course Code and Title	Type (i.e. Core/ Core elective/ GER core/ GER elective/ Unrestricted elective)	No of Hours Per Week				AU	Pre-requisite / Remarks
		Lec	Tut	Lab	Total		
YEAR 4 SEMESTER 2							
CE4079 Final Year Project	Core (CE)	-	-	-	-	8	
CE3006 Digital Communications	Core (CE)	2	1	1	4	3	CE1011, CE2004
CE4xxx Technical Elective 3	CE Major PE	2	1	-	3	3	
BCxxxx Business/CS Integration 3	BUS Major PE	3	1	-	4	4	
AB3601 Strategic Management	Core (Bus)	3	1	-	4	4	AB1501, AB1601
TOTAL		10	4	1	15	22	
GRAND TOTAL (Year 1 to 4)						162	

BCxxxx Business/CE Integration Courses (Students to choose any 3 courses)
<ul style="list-style-type: none"> • BC3401 Enterprise Analytics • BC3402 Financial Service Processes and Analytics • BC3403 Social Media and Digital Analytics • BT2403 Service Operations Management • BC3405 Lean Operations & Analytics • BC3406 Business Analytics Consulting • Supply Chain Analytics • Search Engine and Web Analytics • Prescriptive Analytics and Optimization