



Curriculum for 4-year SCSE Part-time B.Eng Programme

STUDY YEAR	MAJOR REQUIREMENTS		GENERAL EDUCATION REQUIREMENTS (GER)					TOTAL
	CORE (C)	MAJOR PRESCRIBED ELECTIVE (PE)	GER- CORE (GC)	GER-PRESCRIBED ELECTIVE (GER-PE)			UNRESTRICTED ELECTIVE (UE)	
				BUSINESS & MANAGEMENT (BM)	LIBERAL ARTS (LA)	SCIENCE, TECHNOLOGY & SOCIETY (STS)		
1	18		6					24
2	25		3					28
3	19	3	2					24
4	7	12	1					20
Total	69	15	12	0	0	0	0	96

*Students are advised to follow the curriculum in order to ensure they are able to complete the programme within four years duration. However, students may take up to six years to complete the whole programme. All courses are only offered in a particular semester each academic year. Please take note on the pre-requisites and remarks below.

Course Code and Title	Type (i.e. Core/Core elective/ GER core)	AUs	Pre-requisites / Remarks
Year 1 Sem 1			
MH1810 Mathematics I	Core	3	
CZ1103 Introduction to Computational Thinking & Programming	Core	3	
CZ1105 Digital Logic	Core	3	
GC0001 Sustainability: Seeing Through The Haze	GER core	1	Online Course
HW0001 Introduction to Academic Communication	GER core	0	For students who failed QET
TOTAL		10	
Year 1 Sem 2			
CZ1104 Linear Algebra for Computing	Core	3	MH1810
CZ1107 Data Structures & Algorithms	Core	3	CZ1103
CZ1115 Introduction to Data Science & Artificial Intelligence	GER core	3	CZ1103
HW0188 Effective Communication	GER core	2	HW0001 (can be taken concurrently)
TOTAL		11	



Year 1 Special Semester			
MH1812 Discrete Mathematics	Core	3	
TOTAL		3	
Year 2 Sem 1			
CZ2100 Probability and Statistics for Computing	Core	3	MH1810
CZ1106 Computer Organization & Architecture	Core	3	CZ1105 (can be taken concurrently)
CZ2101 Algorithm Design & Analysis	Core	3	MH1812, CZ1107
CZ2002 Object Oriented Design & Programming	Core	3	CZ1103 or CZ1007 (before AY19 cohorts only)
TOTAL		12	
Year 2 Sem 2			
CZ2005 Operating Systems	Core	3	CZ1106, CZ1107
CZ2006 Software Engineering	Core	3	CZ2002 (can be taken concurrently)
CZ2007 Introduction to Databases	Core	3	CZ2101 (can be taken concurrently)
EG0001 Engineers & Society	GER core	3	
TOTAL		12	
Year 2 Special Semester			
CZ3004 Multidisciplinary Design Project	Core	4	Year 3 Standing
TOTAL		4	
Year 3 Sem 1			
CZ3006 Net Centric Computing	Core	3	CZ1104, CZ2100
CZ4031 Database System Principles	Core	3	CZ2007
CZ3002 Advanced Software Engineering	Core	3	CZ2006
HW0288 Engineering Communication	GER core	2	HW0188, Year 3 Standing
TOTAL		11	



Year 3 Sem 2			
CZ4079 Final Year Project	Core	2	Year 4 standing
CZ4062 Computer Security	Core	3	CZ2005
CZ3005 Artificial Intelligence	Core	3	CZ1115, CZ2101
CZ4xxx Technical Elective 1	Core elective	3	
TOTAL		11	
Year 3 Special Semester			
CZ4079 Final Year Project	Core	2	
TOTAL		2	
Year 4 Sem 1			
CZ4079 Final Year Project	Core	2	
CZ3001 Advanced Computer Architecture	Core	3	CZ1106
CZ4xxx Technical Elective 2	Core elective	3	
CZ4xxx Technical Elective 3	Core elective	3	
TOTAL		11	
Year 4 Sem 2			
CZ4079 Final Year Project	Core	2	
CZ4xxx Technical Elective 4	Core elective	3	
CZ4xxx Technical Elective 5	Core elective	3	
HY0001 Ethics & Moral Reasoning	GER core	1	Online Course
TOTAL		9	
TOTAL AUs REQUIREMENT		96	