NANYANG TECHNOLOGICAL UNIVERSITY SINGAPORE

School of Computer Science and Engineering

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	21		3					24
2	22		6					28
3	19	3	3					23
4	10	9	0					21
Total	72	12	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			
CZ1011 Engineering Maths I	Core	3	
CZ1003 Introduction to Computational Thinking	Core	3	
CZ1005 Digital Logic	Core	3	
GC0001 Sustainability: Seeing Through The Haze	GER core	1	Online course
HW0001 Introduction to Academic Communication	Core	0	
TOTAL		10	
Year 1 Sem 2			
CZ1006 Computer Organisation and Architecture	Core	3	CZ1005 (can be taken concurrently)
CZ1007 Data Structures	Core	3	CZ1003
CZ1012 Engineering Maths II	Core	3	CZ1011 (can be taken concurrently)
HW0188 Engineering Communication I	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			
CZ2001 Algorithms	Core	3	MH1812, CZ1007, CZ1012
CZ2002 Object Oriented Design & Programming	Core	3	CZ1007
CZ2004 Human Computer Interaction	Core	3	
CZ2003 Computer Graphics & Visualization	Core	3	CZ1011
TOTAL		12	
Year 2 Sem 2			
CZ2006 Software Engineering	Core	3	CZ2002 (can be taken concurrently)
CZ3003 Software Systems Analysis and Design	Core	3	CZ2006 (can be taken concurrently)
CZ1015 Introduction to Data Science and Artificial Intelligence	GER core	3	
CZ0001 Engineers and 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			
CZ2005 Operating Systems	Core	3	CZ1006, CZ1007
CZ2007 Introduction to Databases	Core	3	CZ1007, CZ2001 (can be taken concurrently)
CZ3006 Net Centric Computing	Core	3	CZ1006, CZ2002
HY0001 Ethics and Moral Reasoning	GER core	1	Online course
HW0288 Engineering Communication II	GER core	2	HW0288
TOTAL		12	
Year 3 Sem 2			
CZ4079 Final Year Project	Core	2	Year 4 standing

CZ3002 Advanced Software Engineering	Core	3	CZ2006
CZ3005 Artificial Intelligence	Core	3	CZ1003, CZ2001
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	CZ1006
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	
CZ3007 Compiler Techniques	Core	3	CZ2001, CZ2006
CZ4xxx Technical Elective 4	Core elective	3	
TOTAL		8	
TOTAL AU REQUIREMENTS		**96**	