AY2020-21 CURRICULUM FOR COMPUTER SCIENCE
3.5-year B Eng (CS) ACCELERATED BACHELOR PROGRAMME (ABP)

This accelerated programme is not applicable to polytechnic students with exemptions. Students under ABP have to do Professional Internship (PI).

Year of Study	Core	MPE	General Education Requirement (GER)					Unrestricted Elective (UE)	Total AU
			Core	Prescribed Elective (PE)					
				BM	LA	STS			
1	29	0	11	0	0	3		0	43
2	31	0	1	3	3	0		6	44
3	17	9	2	0	0	0		3	31
4	7	9	0	0	0	0		6	22
Total	84	18	14	9				15	140

SUMMARY OF ACADEMIC UNIT REQUIREMENT

Suggested Schedules

YEAR 1 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
MH1810	Mathematics I	C	3	
MH1812	Discrete Mathematics	C	3	
CZ1103	Introduction to Computational Thinking & Programming	C	3	
CZ1105	Digital Logic (Engineering Fundamentals 1)	C	3	
CZ1113	Physics for Computing	C	2	
HW0188	Effective Communication	GER Core	2	HW0001 (can be taken concurrently)
-	Science & Technology	GER PE - STS	3	
GC0001	Sustainability: Seeing Through the Haze	GER Core	1	online course
HY0001	Ethics & Moral Reasoning	GER Core	1	online course
			21	

YEAR 1 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
CZ1104	Linear Algebra for Computing	C	3	MH1810
CZ1106	Computer Organisation and Architecture	C	3	CZ1105 (can be taken concurrently)
CZ1107	Data Structures and Algorithms	C	3	CZ1103
-	Engineering Fundamentals 2	C	3	
CZ1115	Introduction to Data Science and Artificial Intelligence	GER Core	3	CZ1103
CZ2100	Probability and Statistics for Computing	C	3	MH1810
EG0001	Engineers and Society	GER Core	3	
ET0001	Enterprise & Innovation	GER Core	1	online course
			22	

YEAR 2 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
CZ2101	Algorithm Design and Analysis	C	3	CZ1107, MH1812
CZ2002	Object Oriented Design and Programming	C	3	CZ1103
CZ2005	Operating Systems	C	3	CZ1106, CZ1107
CZ2006	Software Engineering	C	3	CZ2002 (can be taken concurrently)
CZ2007	Introduction to Databases	C	3	CZ2101 (can be taken concurrently)
ML0003	Kickstart your Career Success	GER Core	1	online course
-	Liberal Arts	GER PE - LA	3	
-	Unrestricted Elective 1	UE	3	
			22	

YEAR 2 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
CZ3004	Multidisciplinary Design Project	C	4	Year 3 standing
CZ3006	Net Centric Computing / Computer Networks	C	3	CZ1104, CZ2100
CZ3001	Advanced Computer Architecture	C	3	CZ1106
CZ3005	Artificial Intelligence	C	3	CZ1107, CZ1115, CZ2101

Course Code	Course Title	Type	AU	Pre-Requisite
CZ3002	Advanced Software Engineering	C	3	CZ2005
-	Business Management	GER PE - BM	3	
-	Unrestricted Elective 2	UE	3	
			22	

YEAR 3 SEMESTER 1				
Course Code	**Course Title**	**Type**	**AU**	**Pre-Requisite**
CZ3179	Professional Internship	C	10	ML0003, Year 3 Standing
			10	

YEAR 3 SEMESTER 2				
Course Code	**Course Title**	**Type**	**AU**	**Pre-Requisite**
CZ4079	Final Year Project	C	4	Final Year Standing
CZ4031	Database System Principles	C	3	CZ2007
CZ4XXX	Prescribed Elective 1	MPE	3	Depends on MPE
CZ4XXX	Prescribed Elective 2	MPE	3	Depends on MPE
CZ4XXX	Prescribed Elective 3	MPE	3	Depends on MPE
HW0288	Engineering Communication	GER Core	2	HW0188, Year 3 Standing
	Unrestricted Elective 3	UE	3	
			21	

YEAR 4 SEMESTER 1				
Course Code	**Course Title**	**Type**	**AU**	**Pre-Requisite**
CZ4079	Final Year Project (cont)	C	4	Final Year Standing
CZ4062	Computer Security	C	3	CZ2006
CZ4XXX	Prescribed Elective 4	MPE	3	Depends on MPE
CZ4XXX	Prescribed Elective 5	MPE	3	Depends on MPE
CZ4XXX	Prescribed Elective 6	MPE	3	Depends on MPE
-	Unrestricted Elective 4	UE	3	
-	Unrestricted Elective 5	UE	3	
			22	

Total AU for Graduation : **140**