

3.5-year BEng (CS) Accelerated Bachelor Programme (ABP)

Applicable to students matriculated in 2015

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

AU requirements

Type	Total No. of AUs
Depth (Core)	100
Breadth	21
Unrestricted electives	15
Grand Total	136

Suggested Curriculum

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							
MH1812 Discrete Mathematics	Core	2	1	1 ⁺	4	3	-
CZ1003 Introduction to Computational Thinking	Core	2	1	1	4	3	-
CZ1004 Inventions and Innovations in Computing	Core	1	1	1 ⁺	2	2	-
CZ1005 Digital Logic	Core	2	1	1	4	3	-
Science & Technology	GER elective	2	1	1	4	3	
HW0188^ Engineering Communication I	GER core	-	2	-	2	2	HW0001 (can be taken concurrently)
GC0001 Introduction to Sustainability: Multidisciplinary Approaches and Solutions	GER core					1	online course
HW0001 English Proficiency	GER core					0	
TOTAL		9	7	3+2 ⁺	20	17	
YEAR 1 SEMESTER 2							
CZ1011 Engineering Mathematics I	Core	2	1	1 ⁺	4	3	-
CZ1012 Engineering Mathematics II	Core	2	1	1 ⁺	4	3	CZ1011 (can be taken concurrently)
CZ1006 Computer Organisation and Architecture	Core	2	1	1	4	3	CZ1005 (can be taken concurrently)
CZ1007 Data Structures	Core	2	1	1	4	3	CZ1003
CZ2004 Human Computer Interaction	Core	2	1	1	4	3	-
CZ0001 Engineers and Society	GER core	2	1	-	3	3	
Liberal Arts	GER elective	2	1	-	3	3	

ML0001 Absolute Basics for Career by MLCPS (Margaret Lien Centre for Professional Success)	GER core					1	online course
TOTAL		14	7	3+2⁺	26	22	

^ Should there be insufficient vacancies, students will take Eng Comm I & II in the following semester.

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 2 SEMESTER 1							
CZ2001 Algorithms	Core	2	1	1 ⁺	4	3	CZ1007, CZ1012, MH1812
CZ2002 Object Oriented Design & Programming	Core	2	1	1	4	3	CZ1007
CZ2005 Operating Systems	Core	2	1	1	4	3	CZ1006, CZ1007
CZ2007 Introduction to Databases	Core	2	1	1	4	3	CZ2001 (can be taken concurrently)
CZ3001 Advanced Computer Architecture	Core	2	1	1	4	3	CZ1006
HY0001 Ethics & Moral Reasoning	GER core					1	online course
Unrestricted elective	Unrestricted elective	2	1	-	3	3	
Unrestricted elective	Unrestricted elective	2	1	-	3	3	
TOTAL		14	7	4+1 ⁺	26	22	
YEAR 2 SEMESTER 2							
CZ2003 Computer Graphics and Visualisation	Core	2	1	1	4	3	CZ1011
CZ2006 Software Engineering	Core	2	1	1	4	3	CZ2002 (can be taken concurrently)
CZ3003 Software Systems Analysis and Design	Core	2	1	1 ⁺	4	3	CZ2006 (can be taken concurrently)
CZ3006 Net Centric Computing	Core	2	1	1	4	3	CZ1006, CZ2002
Technical Elective 1 (CE200x or CE300x)	Core elective	2	1	1	4	3	
Unrestricted elective	Unrestricted elective	2	1	-	3	3	
Business & Management	GER elective	2	1	-	3	3	
TOTAL		14	7	4+1 ⁺	26	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 3 SEMESTER 1							
CZ4079 Final Year Project	Core	-	-	-	-		
CZ3002 Advanced Software Engineering	Core	2	1	1	4	3	CZ2006
CZ3004 Multidisciplinary Design Project	Core	1	-	3	4	4	Year standing 3
CZ4xxx Technical Elective 2	Core elective	2	1	1	4	3	
CZ4xxx Technical Elective 3	Core elective	2	1	1	4	3	
ET0001 Enterprise & Innovation	GER core					1	online course
Unrestricted elective	Unrestricted elective	2	1	-	3	3	
HW0288 Engineering Communication II	GER core	-	2	-	2	2	HW0188, Year 3 standing
TOTAL		9	6	6	21	19	
YEAR 3 SEMESTER 2							
CZ4079 Final Year Project	Core	-	-	-	-	8	
CZ3005 Artificial Intelligence	Core	2	1	1	4	3	CZ1003, CZ2001
CZ3007 Compiler Techniques	Core	2	1	1	4	3	CZ2001, CZ2006.
CZ4xxx Technical Elective 4	Core elective	2	1	1	4	3	
CZ4xxx Technical Elective 5	Core elective	2	1	1	4	3	
CZ4xxx Technical Elective 6	Core elective	2	1	1	4	3	
Unrestricted elective	Unrestricted elective	2	1	-	3	3	
TOTAL		12	6	5	23	26	

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 1							
ML0002 Career Power Up! by MLCPS	GER core					1	online course (to be taken with PI)
CZ3079 Professional Internship	Core	-	-	-	-	8	Year 3 standing
TOTAL		-	-	-	-	9	
GRAND TOTAL (Year 1 to 3.5)							136

* An additional 10 hours per semester have been allocated for these non-lab based courses for Example Classes. Faculty can use these time slots for their pedagogical needs such as to reinforce concepts, provide additional coaching, give more worked examples, allow students to do practice exercises or do research or work on the computers etc.