

3.5-year BEng (CE) 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							
CE1011 Engineering Mathematics I	Core	2	1	1 ⁺	4	3	-
CE1012 Engineering Mathematics II	Core	2	1	1 ⁺	4	3	CE1011 (can be taken concurrently)
CE1003 Introduction to Computational Thinking	Core	2	1	1	4	3	-
CE1004 Inventions and Innovations in Computing	Core	1	1	1 ⁺	2	2	-
CE1005 Digital Logic	Core	2	1	1	4	3	-
Science & Technology	GER elective	2	1	-	3	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		11	8	2+3 ⁺	24	20	
YEAR 1 SEMESTER 2							
CE1006 Computer Organisation and Architecture	Core	2	1	1	4	3	CE1005 (can be taken concurrently)
CE1007 Data Structures	Core	2	1	1	4	3	CE1003
MH1812 Discrete Mathematics	Core	2	1	1 ⁺	3	3	
CE2003 Digital Systems Design	Core	2	1	1	4	3	CE1005
CE0001 Engineers and Society	GER core	2	1	-	3	3	
Liberal Arts	GER elective	2	1	-	3	3	
Unrestricted elective	Unrestricted 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	4+1*	25	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							
CE2001 Algorithms	Core	2	1	1 ⁺	4	3	CE1007, CE1012, MH1812
CE2002 Object Oriented Design & Programming	Core	2	1	1	4	3	CE1007
CE2004 Circuits and Signal Analysis	Core	2	1	1	4	3	CE1012
CE2005 Operating Systems	Core	2	1	1	4	3	CE1006, CE1007
CE3001 Advanced Computer Architecture	Core	2	1	1 ⁺	4	3	CE1006
HY0001 Ethics & Moral Reasoning	GER core					1	online course
Unrestricted elective	Unrestricted elective	2	1	-	3	3	
TOTAL		12	6	3+2 ⁺	23	19	
YEAR 2 SEMESTER 2							
CE2006 Software Engineering	Core	2	1	1	4	3	CE2002 (can be taken concurrently)
CE2007 Microprocessor-based Systems Design	Core	2	1	1	4	3	CE1006, CE2004 (can be taken concurrently)
CE3002 Sensors, Interfacing and Control	Core	2	1	1	4	3	CE2004
CE3005 Computer Networks	Core	2	1	1	4	3	CE1011, CE1012
Technical Elective 1 (CZ200x or CZ300x)	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	5	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							
CE4079 Final Year Project	Core	-	-	-	-	-	
CE3003 Microcontroller Programming	Core	2	1	1	4	3	CE2005
CE3004 Multidisciplinary Design Project	Core	1	-	3	4	4	Year 3 standing
CE4xxx Technical Elective 2	Core elective	2	1	1	4	3	
CE4xxx 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							
CE4079 Final Year Project	Core	-	-	-	-	8	
CE3006 Digital Communications	Core	2	1	1	4	3	CE1011, CE2004
CE3007 Digital Signal Processing	Core	2	1	1	4	3	CE2004
CE4xxx Technical Elective 4	Core elective	2	1	1	4	3	
CE4xxx Technical Elective 5	Core elective	2	1	1	4	3	
CE4xxx Technical Elective 6	Core elective	2	1	1	4	3	
Unrestricted elective	Unrestricted elective	2	1	-	3	3	
TOTAL		10	5	3	18	26	
YEAR 4 SEMESTER 1							
ML0002 Career Power Up! by MLCPS	GER core					1	online course (to be taken by PI)
CE3079 Professional Internship	Core	-	-	-	-	8	
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.