

Sample Curriculum for Accelerated MS in CS from BS in CE

Fall			Spring		
Year 1					
MA11601 ¹	Calculus with Technology 1	4	MA2160	Calculus with Technology 2	4
ENG1101	Engineering Anal./Problem Solving	3	CS1122	Intro. to Programming II	3
PH1100	Physics lab 1	1	PH2100	Univ. Physics I - Mechanics	3
CS1121	Intro to Programming I	3	EE1111	Intro. to Elec & Comp Engg.	1
			EE1110	Essential Math for EE's	1
UN1015	Composition ⁶	3	UN1025	Global Issues ⁶	3
Year 2					
MA2321 ²	Linear Algebra	2	EE2112	Electric Circuits II w/ Lab	4
MA3521 ²	Differential Equations	2	CS2311	Discrete Structures	3
EE2111	Electric Circuits I	3	CS2321	Data Structures	3
EE2174	Digital Logic and Lab	4	PH2200	University Physics II	3
CS1142	Programming at the H/S Interface	3	PH1200	Physics II Lab	1
	Goal 4 Crit/Creat. Thinking course ⁶	3		Goal 8 Soc/Eth Reasoning course ⁶	3
Year 3					
EE3131	Electronics and Lab	4	EE3173	Hardware/Software Integration	4
CS3331	Concurrent Programming or				
EE3160 ³	Linear Systems	3	EE3901	Design Fundamentals	2
CS3421	Computer Organization	3	CS3411	Systems Programming	3
MA3710	Engineering Statistics	3	CS4321	Intro. to Algorithms	3
	2nd Comp/Comm. course ⁶	3		Math/Science elective	3
Year 4					
EE4901 ⁵	EE Design Project 1 (part 1)	2	EE4910 ⁵	EE Design Project 2 (part 2)	2
EE4173	Comp Sys Engg & Performance	3		Math/Science elective	3
CS 3311	Formal Models of Computing ⁷	3		CS 4xxx or CS 5xxx ⁸	3
	CpE Technical elective ⁴	3		CpE Technical elective ⁴	3
EE4272/CS4461	Computer Networks ⁹	3		HASS upper level elective ⁶	3
	HASS upper level elective ⁶	3		HASS elective ⁶	3
Year 5					
CS 5321	Advanced Algorithms	3	CS 5311	Theory of Computation	3
	CS 4000-level Elective ¹⁰	3		CS 4000-level Elective ¹⁰	3
	CS 5000-level Elective ¹⁰	3		CS 5000-level Elective ¹⁰	3
	CS 5990 or CS 5000-level Elective ¹⁰	3		CS 5990 or CS 5000-level Elective ¹⁰	3

¹MA1160 may be replaced by MA1161.

²MA2320 and MA3520 may replace MA2321 and MA3521 (MA2320 and MA3520 are taken in separate semesters).

³Students choose either CS3331, Concurrent Programming, or EE3160, Linear Systems. Either CS3331 or EE3160 may be taken for technical elective credit if the student desires both CS3331 & EE3160.

⁴CpE Technical Electives are taken from the list of approved courses. Choose courses to develop advanced skills in your interest area(s) and gear your education toward a particular career path. Minimum 6 credits upper-level coursework; remaining credits may use ENG1102, ENT3950, ENT3960, and/or up to 4 credits UN3002 (co-op).

⁵Approved Engineering Design courses or Enterprise courses may replace EE4901, & EE4910. See ECE department advisor for details.

⁶Follow university General Education and Humanities, Arts & Social Sciences (HASS) distribution requirements.

⁷Counts as technical elective toward BS CE.

⁸Counts as technical elective toward BS CE and toward MS in CS. Must meet course requirements for both programs.

⁹Counts toward BS CE and MS CS.

¹⁰The course must count toward the MS breadth requirement.