Computer Science Department Credit Requirement Table for Bachelor Degree in 2020(109)

Type	Course Name		Credits I Sem	Credits II Sem	Remarks
University Required Courses (30 Credits)	College Chinese		2		
	College English		8		Students who did not pass the English Proficiency Exam in the university's standard should take "Advanced English" course, which is lectured by language center
	General Education	Core	8 -12		Choose 4 fields among 6 fields and take 1 course in each selected field.
		Elective	8-12		At least 2 credits in Social Sciences and humanities respectively and the maximum is 10 credits
		Total	20		
	Physical Education		0		6 semesters required
	Student Service		0		2 semesters required, can be replaced by "Service Learning"
	Conduct		0		Must pass every semesters
Department Required Courses (52 credits)	Fundamental Required Course (30 credits)	General Physics (I、II)	3	3	
		Calculus (I 、 II)	3	3	
		Introduction to Programming I (CS1355)	3		
		Introduction to Programming II (CS1356)	3		
		Data Structures(EECS2040)	3		
		Linear Algebra (EECS2050)	3		
		Probability(EECS3030)	3		
		Discrete Mathematics (EECS2060)	3		
	Core Required Courses (22 credits)	Logic Design (EECS1010)	3		
		Logic Design Lab. (EECS2070)	3		
		Software Lab. (CS2410)	3		
		Computer Architecture (CS4100)	3		
		Design and Analysis of Algorithms (CS4311)	3		
		Operating Systems(CS3423)	3		
		System Integration Implementation I (CS3901)	2		
		System Integration Implementation II (CS3902)	2		

Professional Elective Courses (36 credits)	Elective Courses for Breadth and Depth Requirements	① All students should choose one course in each category at least (take five courses) ② Students in ECS group (甲) should choose three courses in cat. A or cat. B at least. ③ Students in AI group (丙) should choose two courses in cat. D at least.	15	Cat. A	Cat. B	Cat. C	Cat. D
				Ordinary Differential Equations (EECS2030) Signal and Systems (CS2505) Scientific Computing (CS3330) Formal Language (CS3371)	Circuits and Electronics I (CS2100) Introduction to Integrated Circuit Design (CS3120) Introduction to Embedded Systems (CS4101) Compiler Design (CS3404) Digital System Design (EECS4010)	Introduction to Computer Networks (EECS3020) Software Engineering (CS4461) Cryptography and Network Security (CS3305) Introduction to parallel computing (CS4111)	Introduction to Database Systems (CS4710) Introduction to Artificial Intelligence (CS4601) Introduction to Multimedia (CS3570) Introduction to machine learning (CS4602)
	EECS Professional Electives		21	Please consult with advisor about related professional field(Courses No. with EE、CS、ISA、COM)			
	Other Electives (10 credits)		10	Please consult with advisor			
Minimum Credits for Bachelor Degree			**128**				
Notes		1. Please refer to CS department courses map for information about professional elective courses. 2. There will be 12 more total credits for Form 5 students. Please refer to the Department Office for more details. 3. Students pursuing a Double Major in CS department must fulfill the credit requirement of "Professional Electives courses"					