

Computer Science Academic Year 102 (2013) Mandatory Courses and Credits Requirement Table for Undergraduate Degree

Type	Course Name		Credits		Remarks		
			I Sem	II Sem			
University Mandatory Courses (30 Credits)	College Chinese		2				
	College English		4	4			
	General Education	General Education		Mandatory		Must choose at least 5 categories of courses among the 7 categories available for this field	
		Elective		8-10		At least 4 credits for each area: Social Sciences (4) and humanities (4). Maximum 10 credits.	
		Total		20			
	Physical Education		0		Mandatory course for 6 semesters		
	Student Service		0		Mandatory course for 2 semesters		
	Conduct				Must pass every semesters		
Department Mandatory Courses (48 credits)	Fundamental Mandatory Course (30 credits)	General Physics (I、II)		3	3		
		Calculus (I、II)		3	3		
		Introduction to Programming (CS1355)		3			
		Introduction to Computer Science (CS1356)		3			
		Data Structures(CS2351)		3			
		Linear Algebra (CS2334)		3			
		Probability(CS3332)		3			
		Discrete Mathematics (CS2336)		3			
	Core Mandatory Courses (18 credits)	Common Core Mandatory Courses	Digital Logic Design (CS2102)		3		
			Hardware Lab (CS2104)		2		
			Software Lab. (CS2410)		2		
			Computer Architecture(CS4100)		3		
			Introduction to Algorithms(CS4311)		3		
			Operating Systems(CS3423)		3		
			Final Project I (CS3901)		1		
Final Project II (CS3902)		1					
Professional Elective Courses (36 credits)	Elective Courses for Breadth and Depth Requirements	Cat. ECS.	24	Mandatory Courses	Cat. A (one course at least)	Cat.B(three courses at least)	Cat.C(two courses at least)
				Engineering Mathematics (CS3334) Circuits and Electronics I (CS2100)	Signal and Systems (CS2505) Scientific Computation (CS3330) Formal Language (CS3371)	Circuits and Electronics II(CS3101) Introduction to Integrated Circuit Design (CS3120) Introduction to Embedded Systems (CS4105) Compiler Design (CS3404) Digital System Design (CS4125)	Introduction to Database Systems (CS4710) Introduction to Computer Networks (CS3212) Introduction to Multimedia (CS3570) Cryptography and Network Security (CS3305)

				Cat. A (one course at least)	Cat. B (two courses at least)	Cat. C (three courses at least)
		Cat. CS.	18	Engineering Mathematics (CS3334) Signal and Systems (CS2505) Scientific Computations (CS3330) Formal Language (CS3371)	Circuits and Electronics I (CS2100) Introduction to Integrated Circuit Design (CS3120) Introduction to Embedded Systems (CS4105) Compiler Design (CS3404)	Introduction to Database Systems (CS4710) Introduction to Computer Networks (CS3212) Introduction to Artificial Intelligence (CS4601) Introduction to Multimedia (CS3570) Software Engineering (CS4461) Cryptography and Network Security (CS3305)
	Elective Courses for Coverage Requirements (EE, CS, EECS)	Cat. ECS.	12	Please consult with advisor about related professional field (Courses No. with EE · CS · ISA · COM) and LS1103 Introduction to Life Science		
		Cat. CS.	18			
Free Electives (10 credits)			14	Please consult with advisor		
Minimum credits required for graduation			128			
Remarks	Students need to pass the "Programming Examination" before graduation Students pursuing a double major must fulfill the credit requirement for professional elective courses Students in different categories (ECS and CS) shall refer to different related course requirements					