

Computer Science and Technology Courschema 2018

Department of Computer Science and Engineering

Version: 201801

1. Introduction

Computer Science is as a great developing potential major, seeing an acute shortage of advanced talents. With the rapid development of computer technology and the modernization enterprises, the phenomenon will become more and more serious. The society urgently needs high-quality talents due to the intensive, permeability, interdisciplinary integration, technology innovation, and the fierce competition in the market in current and future period of time.

2. Objectives

This major is aiming at cultivating talents who possess firm professional theory knowledge, mastering the frontier computer system design principle, corresponding research and exploitation ability, and capable of utilizing English and computer technology. After graduation, students can not only engage in research, exploitation, management, or teaching in computer science and technology field in corporations, scientific research institutes, universities, but also continue their postgraduate studies in Computer Science and Technology and related or interdisciplinary fields.

3. Program Length and Degree

Program Length: 4

Degree: Bachelor of Engineering

English_requirements

Choose courses according to your level in entrance events.

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Basic Compulsory

Course	Code	Department	Total Credit	Exp Credit	Weekly period	Semester	Prerequisite
Linear Algebra I A	MA103A	Department of Mathematics	4	0	4	2; 1;	
General Physics I B	PHY103B	Department of Physics	4	0	4	2; 1;	
General Physics II B	PHY105B	Department of Physics	4	0	4	2; 1;	PHY103B
Introduction to Programming A	CS102A	Department of Computer Science and Engineering	3	1	4	2; 1;	
Experiment for Foundation of Physics	PHY104B	Department of Physics	2	2	4	2; 1;	
Calculus I A	MA101B	Department of Mathematics	4	0	4	2; 1;	

Calculus II A	MA102B	Department of Mathematics	4	0	4	2; 1;	MA101B
Situation and Policy	GE240	Center for Ideological and Political Education and Research	2	0	2	2; 1;	
Synopsis of Modern Chinese History	GE241	Center for Ideological and Political Education and Research	2	0	2	2; 1;	
Foundation of Ethics and Law	GE242	Center for Ideological and Political Education and Research	3	1	2	2; 1;	
Introduction of Mao Zedong Thought and Socialism with Chinese Characteristics	GE341	Center for Ideological and Political Education and Research	6	3	3	2; 1;	
Introduction of Marxism Principles	GE340	Center for Ideological and Political Education and Research	3	1	2	2; 1;	
Military Theory and Training	GE100	Sports Center	2	1	0		
Physical Education (I-IV)	GE131	Sports Center	1	0	2	1;	
Physical Education (I-IV)	GE132	Sports Center	1	0	2	2;	
Physical Education (I-IV)	GE231	Sports Center	1	0	2	1;	
Physical Education (I-IV)	GE232	Sports Center	1	0	2	2;	
Languages & Linguistics	HUM012	Center for the Humanities	2	0	2	2; 1;	

Major Prerequisite

Course	Code	Department	Total Credit	Exp Credit	Weekly period	Semester	Prerequisite
Calculus I A	MA101B	Department of	4	0	4	2; 1;	

		Mathematics					
Calculus II A	MA102B	Department of Mathematics	4	0	4	2; 1;	MA101B

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Total Credit of courses with label "GEM" || "DHSSS" must larger or equal than 2 .

Total Credit of courses with label "HUM" must larger or equal than 4 .

Total Credit of courses with label "SS" || "GE" || "GEJ" || "HEC" must larger or equal than 4 .

Major Basic

Course	Code	Department	Total Credit	Exp Credit	Weekly period	Semester	Prerequisite
Data Structures and Algorithm Analysis	CS203	Department of Computer Science and Engineering	3	1	4	1;	CS102A
Digital Logic	CS207	Department of Computer Science and Engineering	3	1	4	1;	
Discrete Mathematics	CS201	Department of Computer Science and Engineering	3	0	3	2;	(MA102A MA102B)&MA103A
Computer Organization Principle	CS202	Department of Computer Science and Engineering	3	1	4	2;	CS207
Algorithm Design and Analysis	CS208	Department of Computer Science and Engineering	3	1	4	2;	CS102A&CS203
Database Principle	CS307	Department of Computer Science and Engineering	3	1	4	2;	
Probability and Statistics	MA212	Department of Mathematics	3	0	3	1;	(MA102A MA102B)

Major Cores

Course	Code	Department	Total Credit	Exp Credit	Weekly period	Semester	Prerequisite
Embedded System and Microcomputer Principle	CS301	Department of Computer Science and Engineering	3	1	4	1;	CS207
Objects-	CS309	Department of	3	1	4	1;	CS102A&CS2

oriented analysis and design		Computer Science and Engineering					02&CS203
Group Project I	CS321	Department of Computer Science and Engineering	2	2	4	1;	
Frontier Seminars in Computer Science and Technology I	CS317	Department of Computer Science and Engineering	1	0	1	1;	
Operating Systems	CS302	Department of Computer Science and Engineering	3	1	4	2;	CS301
Software Engineering	CS304	Department of Computer Science and Engineering	3	1	4	2;	CS309
Group Project II	CS326	Department of Computer Science and Engineering	2	2	4	2;	
Frontier Seminars in Computer Science and Technology II	CS318	Department of Computer Science and Engineering	1	0	1	2;	
Group Project III	CS413	Department of Computer Science and Engineering	2	2	4	1;	
Frontier Seminars in Computer Science and Technology III	CS415	Department of Computer Science and Engineering	1	0	1	1;	
Industrial Practice	CS470	Department of Computer Science and Engineering	2	2	0		
Degree Thesis (Design)	CS490	Department of Computer Science and Engineering	8	8	16		

Major Elective

Total Credit of courses with label "CS_elective" must larger or equal than 19 .

Practice

Course	Code	Department	Total Credit	Exp Credit	Weekly period	Semester	Prerequisite
Advanced Computer Science Experiment I	CS319	Department of Computer Science and Engineering	1	1	0		
Advanced Computer Science Experiment II	CS322	Department of Computer Science and Engineering	1	1	0		
Advanced Computer Science Experiment III	CS417	Department of Computer Science and Engineering	1	1	0		
Industrial Practice	CS470	Department of Computer Science and Engineering	2	2	0		
Degree Thesis (Design)	CS490	Department of Computer Science and Engineering	8	8	16		