

Computer Science

Department Chairperson: Howard A. Silver

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The Department of Mathematics and Computer Science offers a Bachelor of Science degree in Computer Science and a minor sequence in computer science for students majoring in other fields. The student may choose to concentrate in database and software engineering or communications and networks. Students obtaining this degree will be prepared for positions in private industry or government. Students will also be prepared to pursue an advanced degree in their area of specialization.

All entering freshmen and transfer students are required to take the university placement examination in mathematics. These students may not register for any mathematics or computer science course until they have taken the examinations. This examination is designed to place students into the appropriate mathematics course from Basic Mathematics to Calculus.

General Requirements

Admission to the program is contingent upon completion of CPTR 141 and CPTR 241, cumulative grade point average of 2.0 or higher, and acceptance by the department.

The department will not accept D grades in any required major courses or required supportive courses, either as transfer credit or completed at Chicago State University.

Requirements include completion of 120 semester hours of work: 6 hours in composition, 18 hours in humanities including 6 hours in a single foreign language; 18 hours in the social sciences; 14 hours in the natural sciences; 46 hours in computer science; 40 hours in required supportive courses; and passing the examination on the state and federal constitutions. By demonstrating proficiency a student may be able to obtain credit for certain mathematics and computer science courses at the recommendation of the department.

Specific Requirements

Required Courses

46 credit hours

CPTR 141, 180, 241, 255, 305, 307, 317, 320, 333, 355, 356, 357; six credit hours selected from one of the two following tracks: Database and Software Engineering: CPTR 308, 313, 339, 340, 358 or Communications and Networks: CPTR 362, 365, 366, 368; six credit hours from courses not taken in the list above or from the following: 301, 309, 310, 341, 370, 371, 372, 381.

Required Supportive Courses**40 credit hours***Mathematics:* MATH 201; 210 or 315; 261; 262; 283*Science:* BIOL 107; 108 or equivalent; one of the following physical science sequences; PHYS 151, 152 or PHYS 211, 212 or CHEM 155, 156. (These courses can be applied to the natural science requirement.)*Communications and Ethics:* SPCH 203, ENGL 212, PHIL 265 (These courses can be applied to the humanities requirement.)**Elective Courses****1 credit hour**

One credit hour of electives selected with the departmental advisor's approval.

A semester-by-semester sample curriculum pattern is given below.

Sample Curriculum Pattern Computer Science Option*First Semester*

MATH 163*	3
ENG 127	3
Social Science***	3
CPTR 141	3
CPTR 180	1
BIOL 107	<u>3</u>
	16

Second Semester

MATH 261	4
ENG 128	3
BIOL 108	3
MATH 283	3
CPTR 241	<u>3</u>
	16

Third Semester

MATH 262	4
MATH 210	3
CPTR 307	3
PHIL 265	3
Foreign Language	<u>3</u>
	16

Fourth Semester

MATH 201	3
CPTR 255	3
CPTR 305	3
Foreign Language	3
Social Science	<u>3</u>
	15

Fifth Semester

CPTR 355	3
CPTR 320	3
CPTR 317	3
Social Science	3
ENGL 212	<u>3</u>
	15

Sixth Semester

CPTR 356	3
CPTR 333	3
CPTR 357	3
Social Science	3
Speech 203	<u>3</u>
	15

<i>Seventh Semester</i>		<i>Eighth Semester</i>	
CPTR Elective**	3	CPTR Elective**	3
CPTR Elective**	3	CPTR Elective**	3
Humanities	3	Social Science	3
Social Science	3	Physical Science	<u>4</u>
Physical Science	<u>4</u>		
	16		13

**The first course in mathematics is determined by placement examination.*

***Six hours selected from one of two tracks (Database and Software Engineering or Communications and Networks), plus six more hours from an approved list.*

****Any one of HIST 130, 131, or 215, POL 101 or 303 will satisfy the constitution examination requirement.*