2017 Sample Curriculum

FRESHMAN YEAR

First Semester	***Credit***
CS 1010-Intro to Computer Science[14]	1
CS 1570-Intro to Programming	3
CS 1580-Intro to Programming Lab	1
English 1120-Exposition and Argumentation	3
Math 1214-Calculus for Engineers I	4
Humanities Elective[5]	3
	15

Second Semester	***Credit***
CS 1200-Discrete Mathematics	3
CS 1575-Data Structures	3
CS 1585-Data Structures Lab	1
English 1160-Writing and Research[13]	3
SP&MS 1185-Intro to Speech[4]	3
Math 1215-Calculus for Engineers II	4
	17

SOPHOMORE YEAR

First Semester	***Credit***
CS 2200-Theory of Computer Science	3
CS 2500-Algorithms	3
Social Science Elective[2]	3
Statistics Elective[6]	3
Physics-1135[3]	4
	16

Second Semester	***Credit***
CS 2300-File Struct & Intro Database System	3
CpE 2210-Intro to Comp Eng[12]	3
Math 3108-Linear Algebra I[7]	3
Physics-2135[3]	4
Literature Elective[5]	3
	16

JUNIOR YEAR

First Semester	***Credit***
CS 3100-Software Engineering I	3
CS 3500-Programming Languages and Translators	3
CpE 3150-Digital Systems Design	3
History Elective[2]	3
Ethics Elective[11]	3
	15

Second Semester	***Credit***
CS 3800-Intro Operating Systems	3
CS 3600 –Introduction to Computer Security	3
Laboratory science course(s)[1]	5
Sci/Eng Elective[10]	3
Social Science Elective[2]	3
	17

SENIOR YEAR

First Semester	***Credit***
CS 4096-Software Systems Development I	3
CS Electives[9]	6
Sci/Eng Elective[10]	3
Free Elective[8]	3
	15

Second Semester	***Credit***
CS Electives[9]	9
Sci/Eng Elective[10]	3
Free Electives[8]	5
	17

NOTES

This sample curriculum is effective for catalog year 2017.

1) Any science lecture-laboratory course or course pair totaling at least four hours credit. The laboratory is mandatory in all cases. These course(s) may be selected from: CHEM 1310 and CHEM 1319; CHEM 1351; BIO SCI 1113 and BIO SCI 1219; PHYSICS 1505 and PHYSICS 1509; GEOLOGY 1110 and GEOLOGY 1119; GEOLOGY 1120 and GEOLOGY 1129; BIO SCI 1223 and BIO SCI 1229; BIO SCI 2353 and BIO SCI 2359.
2) Any nine credit hours of social science courses approved on the list maintained on the Computer Science website. One course must satisfy the Missouri and U.S. Constitution requirement. CS 4700 may be counted as a Social Science elective.
3) Either PHYSICS 1135 or PHYSICS 1111-PHYSICS 1119; either PHYSICS 2135 or PHYSICS 2111-PHYSICS 2119
4) SP&M S 1185 or SP&M S 3282
5) One literature and one humanities course approved on the list maintained on the Computer Science website.
6) One of STAT 3113, STAT 3115, STAT 3117 or STAT 5643.
7) MATH 3103 or MATH 3108
8) Courses chosen from any field so that 128 hours are completed. These and only these courses may be taken pass/fail and only one course may be taken pass/fail each semester. Some courses such as algebra, trigonometry, MATH 1214, MATH 1215, MATH 1221, PHYSICS 1111, PHYSICS 1119, PHYSICS 1135, PHYSICS 2135, PHYSICS 2111, PHYSICS 2119, PHYSICS 1145, PHYSICS 2145 and the first two years of ROTC do not count toward the free electives.
9) Fifteen hours of elective Comp Sci courses excluding COMP SCI 2002, COMP SCI 4700, Comp Sci 2001 – Domain Exploration and Innovation Methods, Comp Sci 3001 – Skill Development for Entrepreneurs and Innovators, and all Comp Sci x9xx courses, At least nine hours must be 5000-level or higher. At least nine hours must be lecture courses.
10) Any nine hours chosen from departments that offer a degree associated with either the Discipline Specific Curricula Committee for Sciences or the Discipline Specific Curricula Committee for Engineering, excluding computer science. These may not be MATH 1208, MATH 1214, MATH 1215, MATH 1221, PHYSICS 1111, PHYSICS 1119, PHYSICS 1135, PHYSICS 2135, PHYSICS 2111, PHYSICS 2119, PHYSICS 1145, or PHYSICS 2145.
11) One of PHILOS 3225 or PHILOS 3235 or PHILOS 4340 or PHILOS 4368.
12) Laboratory not required.
13) ENGL 1160 or ENGL 3560.
14) One of Comp Sci 1010, BIO SCI 1201, CHEM 1110, PHYSICS 1101, MATH 1101, or FR ENG 1100.

Additional requirements for Bachelor of Science in Computer Science

A minimum of 128 credit hours is required for a Bachelor of Science degree in Computer Science and an average of at least two grade points per credit hour must be obtained. All computer science majors must earn a "C" or better grade in all COMP SCI courses used to fulfill B.S. in Computer Science degree requirements as well as in COMP ENG 2210, COMP ENG 3150, and the required ethics elective.

Thank you for your interest in Computer Science!

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