Playing a video game, downloading MP3s, or talking on a cell phone depend on software. Computer scientists design, analyze and develop software for the computer systems and networks that power today's world. Software applications include personal computing, entertainment systems, and life-critical applications such as medical and flight systems. Computer scientists are the people that develop this software, which requires a high degree of specialization. The computer science program at Southeast is one of only five programs in Missouri to hold accreditation by the Computing Accreditation Commission of ABET, (http://www.abet.org).

Computer Science students will...

- Obtain a thorough understanding of the fundamental principles of computing and mathematics.
- Demonstrate fundamental software engineering skills on a non-trivial project to the satisfaction of a client.
- Demonstrate programming proficiency in a modern language.
- Be prepared to enter the workforce or be accepted into the graduate school of choice.

Career Planning

All graduates find employment in their field or start the graduate programs of their choice within a few months of graduation.

<table>
<thead>
<tr>
<th>Demonstrated Career Proficiency is a Requirement of all Southeast Students</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CL001/CL002</strong> First Semester</td>
</tr>
<tr>
<td><strong>CL003</strong> Junior Year</td>
</tr>
<tr>
<td><strong>CL004</strong> Senior Year</td>
</tr>
</tbody>
</table>

Career Services, located in Academic Hall 057, provides professional career advising to guide students in their career development.

Internship and Employment

Opportunities of Recent Graduates

- Boeing
- Garmin
- Microsoft
- A T & T
- Edward Jones
- Maritz
- Big River Telephone
- Element 74
- Vintage Software

Graduate Schools and Programs of Recent Graduates

- University of Missouri
- Missouri State University
- Auburn University
- University of Illinois

Admission Requirements

A high school student interested in majoring in Computer Science should complete four years of mathematics that includes trigonometry and an introduction to calculus. Four years of science, which includes both chemistry and physics is highly recommended. A strong background in English is essential.
Bachelor of Science (BS)

This is a guide based on the 2014-2015 Undergraduate Bulletin and is subject to change. The time it takes to earn a degree will vary based on several factors such as the area of specialization chosen by the student, dual enrollment, remediation, and summer enrollment. Students will meet with an academic advisor each semester and use DegreeWorks to monitor their individual progress.

Computer Science – 82 hours
A grade of “C” or better is required in each course that is a prerequisite course.

- CS003 Computer Science Assessment (0)
- CS155 Computer Science I (4)
- CS245 Discrete Structures (3)
- CS250 Computer Science II (4)
- CS251 Computer Systems (3)
- CS350 Computer Science III (4)
- CS355 C and the Unix Environment (3)
- CS380 Applications Programming (3)
- CS450 Discrete Structures II (3)
- CS550 Analysis of Algorithms (3)
- CS380 Programming Languages (3)
- CS445 Software Engineering I (3)
- CS480 Data Communications (3)
- CS495 Senior Seminar (1)
- MA140 Analytic Geometry and Calculus I (5)
- MA145 Analytic Geometry and Calculus II (4)
- MA223 Elementary Probability and Statistics (3)
- MA345 Linear Algebra (3)
- MA380 Writing for Science and Technology (3)
- MA300 Analytic Geometry and Calculus I (4)
- MA345 Analytic Geometry and Calculus II (4)
- MA345 Linear Algebra (3)
- MA350 Writing for Science and Technology (3)
- UI450 Capstone Experience (3)

Choose 3 hours of CS300-599 level elective:
- CS Elective (3)

Cognate Discipline Support:
There is a 12-hour science requirement, which must include a two-semester laboratory science sequence from among the following:

Biology:
- BI151 Biological Reasoning (3)
- BI153 Introduction to Organismal Biology (4)
- BI154 Genetics and Cellular Biology I (4)
- OR

Chemistry:
- CH185 General Chemistry (5)
- CH186 Foundations of Inorganic Chemistry (3)
- CH187 Inorganic Chemistry and qualitative Analysis Lab (2)
- OR

Introductory Physics:
- PH120 Introductory Physics I (5)
- PH121 Introductory Physics II (5)
- OR

General Physics:
- PH220 General Physics I (5)
- PH221 General Physics II (5)

For the remainder of the 12-hour requirement, the student must take science course(s) suitable to science majors from among Biology, Chemistry, Geosciences, Engineering Physics, or Physics.

University Studies Requirements (not already listed above):
UI100 First Year Seminar, EN100 English Composition, Artistic Expression, Written Expression, Oral Expression, Literary Expression, Behavioral Systems, Living Systems* or Physical Systems*, Development of a Major Civilization, Economic Systems, Political Systems, Social Systems, and one IU/UI3XX.

*One of the science courses will satisfy either Living Systems or Physical Systems

Degree requirements for all students: a minimum of 120 credit hours, completion of University Studies program, career proficiencies (CL001-004), Writing Proficiency Exam (WP003), and completion of the Measure of Academic Proficiency and Progress (MAPP) at the freshman and senior levels.

Refer to the Undergraduate Bulletin or DegreeWorks for additional graduation requirements (i.e. minimum GPA and coursework) for your program of study.

For advising
College of College
Office of Admissions
(573) 651-2900
admissions@semo.edu
www.semo.edu

To explore the College of Science, Technology, and Agriculture online, visit
http://www.semo.edu/costa

For advising
College of College
(573) 651-5930
jtmiller@semo.edu

To learn more
Office of Admissions
(573) 651-2900
admissions@semo.edu
www.semo.edu

Degree Map

Department of Computer Science
Bachelor of Science (BS)

Fall Semester | Spring Semester
--- | ---
UI100 | CS265
3 | 4
EN100 | MA145
3 | 4
CS155 | Artistic Expression
4 | 3
MA140 | Behavioral Systems
5 | 3
Total | CS280
15 | 17

First Year

Second Year

Third Year

Fourth Year

Total | Total
--- | ---
13-15 | 16-17

Total | Total
--- | ---
15-17 | 15

Total | Total
--- | ---
15 | 14-16

*Revised 02/20/2014

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