Computer Information Systems

Bachelor of Science (BS)

Computer information systems teaches software development in focused application areas. Computer science focuses more deeply on the scientific, engineering, and theoretical aspects of computing. The goal of both programs is the education of software developers – the people who create the software tools and systems that are used by others. The program has many course choices either for applying computing in different application areas or for specializing in different computing disciplines.

Computer information systems program offers nine tracks, five of which require a specific minor:

- Business Administration (can be completed fully online)
- Commerce
- Game Programming
- Information Assurance
- Multimedia Programming
- Networking
- Science
- Web Page Design & Multimedia Computing
- Web Programming

Computer Information Systems 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 their choice.

Career Planning

Career preparation is part of the mission of Southeast. 100% of programs offer our students an internship, study-abroad program, clinical opportunity, student teaching or research internship.

The Office of Career Services in Academic Hall 057 can provide students with professional career counseling and coaching, resume critiques, practice interviews, job search strategies, career events, networking opportunities, and more.

<table>
<thead>
<tr>
<th>Demonstrated Career Proficiency is a Requirement of all Southeast Students</th>
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<tbody>
<tr>
<td><strong>CL001 First Semester</strong> Students connect academic career planning by completing an online career assessment</td>
</tr>
<tr>
<td><strong>CL002 Second Semester</strong> Students learn more about resources available to enhance academic and career planning</td>
</tr>
<tr>
<td><strong>CL003 Junior Year</strong> Students learn about continued career planning, job search strategies, and networking</td>
</tr>
<tr>
<td><strong>CL004 Senior Year</strong> Students learn about resume development, professional communication, interviewing, and transitioning to the first job from college</td>
</tr>
</tbody>
</table>

Internship and Employment Opportunities of Recent Graduates

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

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 Information Systems 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.

Special Options with Computer Information Systems

This program is available as an online program, as well as to students on the main campus.
COLLEGE OF SCIENCE, TECHNOLOGY AND AGRICULTURE

Computer Information Systems
Bachelor of Science (BS)

This is a guide based on the 2017-2018 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.

CURRICULUM CHECKLIST

Computer Information Systems – 82 hours
- IS003 Computer Info Systems Assessment (0)
- IS130 Application Development I (3)
- IS175 Computer Information Systems I (3)
- IS245 Web Development & Security (3)
- IS275 Computer Information Systems II (3)
- IS320 Human Computer Interaction (3)
- IS330 Application Development II (3)
- IS340 Information Technology (3)
- IS360 Mobile Application Development (3)
- IS375 Database & Information Systems (3)
- IS445 Systems Analysis & Design (3)
- IS448 ISIT Project Management (3)
- IS465 Management Support Systems (3)
- IS496 Senior Seminar (1)
- IU309 Writing for Science and Technology (3)
- IU315 Ethics in the Cyber World (3)
- MA139 Applied Calculus (3)
- MA223 Elementary Probability & Statistics (3)
- UI450 Capstone Experience (3)

Choose one advising track:
- Business Administration – requires Business Administration minor and 12 additional specified hours
- Commerce – Required minor from specified list; 6 specified hours and 6-9 hours from specified list of courses
- Game Programming – requires 33 specified hours
- Information Assurance – requires Cybersecurity minor and 6 hour from specified list of courses
- Multimedia Programming – requires 15 specified hours and 12 hours from specified list
- Networking – requires Computer Networking minor and 18 specified hours
- Science – required minor from specified list and additional 10-15 hours from specified list of courses
- Web Page Design & Multimedia Computing – requires 12 specified hours and additional 15 hours from specified list of courses
- Web Programming – requires 30 specified hours

University Studies Requirements (not already listed above):

If you have dual credit or transfer credit, please visit our transfer course equivalencies guide at semo.edu/transfercredit.

SAMPLE FOUR-YEAR PLAN

<table>
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<th>Course #</th>
<th>Hrs</th>
<th>Course #</th>
<th>Hrs</th>
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<td><strong>Spring Semester</strong></td>
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<tr>
<td>UI100</td>
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<td>IS175</td>
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<td>EN100</td>
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<td>Track course</td>
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<td>IS130</td>
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<td>MA139</td>
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<tr>
<td>Behavioral Systems</td>
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<td>Written Expression</td>
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FIRST YEAR
- Milestone: maintain 2.0 cumulative GPA

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SECOND YEAR
- Milestone: maintain 2.0 cumulative GPA

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<td>IS465</td>
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<td>IS360</td>
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<td>IU309</td>
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<td>Track course</td>
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<td>Living Systems</td>
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<td>Track course</td>
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<td>Physical Systems</td>
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THIRD YEAR
- Milestone: maintain 2.0 cumulative GPA

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<td>Economic Systems</td>
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<td>Political Systems</td>
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FOURTH YEAR
- Milestone: maintain 2.0 cumulative GPA

A “Milestone” signifies a significant stage for a student in the completion of a degree.

Degree requirements for all students: a minimum of 120 credit hours, completion of University Studies program, completion of 39 senior division hours (300-599), career proficiencies (CL001-004), Writing Proficiency Exam (WP003), and completion of the Measure of Academic Proficiency and Progress (MAPP) at the senior level. Refer to the Undergraduate Bulletin or Degree Works for additional graduation requirements for your program.

Revised 3/31/2017

To learn more
Office of Admissions
(573) 651-2590
admissions@semo.edu
www.semo.edu

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

For advising
Center for Academic Advising - North
(573) 651-5090
www.semo.edu/advising
## Bachelor of Science (BS) in Computer Information Systems

**Required Courses:**
- AC 330 Accounting Analytics 3
- IS 440 Web Design for Electronic Commerce 3
- IS 575 IS/IT Strategy & Management 3
- MK 555 Internet Marketing 3

**Required Minor:**
- Business Administration

**Required Courses:**
- IS 440 Web Design for Electronic Commerce 3
- IS 575 IS/IT Strategy & Management 3
- Additional Requirements: Choose 6-9 hours depending on minor chosen
  - AC 222 Principles of Managerial Accounting 3
  - AC 375 Financial Statement Analysis 3
  - EC 225 Principles of Macroeconomics 3
  - FI 361 Financial Management 3
  - IM 411 Total Quality Assurance 3
  - MG 301 Principles of Management 3
  - MK 301 Principles of Marketing 3

**Required Minor (Choose One):**
- Accounting: Marketing, Integrated Marketing
- Economics: Marketing, Management
- International Business: Marketing, Retail Management
- Management: Marketing, Sales Management

**Required Courses:**
- AR 104 2D Design 3
- AR 323 Art & New Technology 3
- CS 155 Computer Science I 4
- CS 265 Computer Science II 4
- CS 300 Computer Science III 4
- CS 440 Database 3
- CS 501 Media Elements 3
- CS 530 Database Applications 3

**Required Minor:**
- Cybersecurity

**Required Courses:**
- CS 155 Computer Science I 4
- CS 265 Computer Science II 4
- CS 300 Computer Science III 4
- CS 315 C & the Unix Environment 3
- CS 480 Data Communications 3

**Required Minor:**
- Computer Networking