What Do Computer Scientists Do?

Computer science involves programming computing devices, creating information systems, engineering new products, visualizing and creating imagery, working with data infrastructure and networks, and protecting information through cybersecurity. Computer scientists can focus on software development, databases and analytics, cybersecurity, computer graphics and visualization, video game design, among others.

Concentrations

Software Engineering (SEG)—The field of SEG involves developing quality software, meeting project deadlines and budget parameters, and ensuring software is built systematically to requirements and design specifications.

Cybersecurity (CYB)—The field of CYB involves protecting networks, devices, and data from unauthorized access or criminal use and ensuring confidentiality, integrity, and availability of information.

Data Science and Analytics (DSA)—The field of DSA incorporates techniques and theories from diverse areas such as mathematics, biology, statistics, data warehousing, and artificial intelligence.

Cloud Computing and Networking (CCN)—The field of CCN involves a system which utilizes multiple computers distributed, connected in real time, and running software that collaborates to provide work (service) to a customer (the user).

Computer Science and Second Discipline—The concentration permits a 15-hour study area outside of computer science. Students may select an official LSU minor or customize a study plan following department guidelines.

PROGRAM FACTS

2022–2023 Enrollment: 900 Students

Common Minors: Digital Media Arts and Engineering (DMAE), Robotics, eCommerce, Information Technology Management, Mathematics, Business Administration (BADM)

Student Organizations:
WICS—Women in Computer Science
WICys—Women in Cybersecurity
SSL—Security Society at LSU

GRADUATE STARTING SALARIES

Median full-time in field salary info for graduates of the last three years

Middle 50%

$67,000

$70,000

$73,000

Median Salary

Undergraduate Coordinator and Advisor
Patti Aymond
Email: paymond@lsu.edu
Phone: 225-578-4359

CAREER OPTIONS

Computer Scientist
Software Developer
Cybersecurity Specialist
Network/Database Designer
Technical Analyst
Computer Animator
Web Developer
Data Analyst

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### Curriculum Overview

**Computer Science**

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<tr>
<td>Intro to Computer Science</td>
<td>Discrete Structures</td>
<td>Operating Systems</td>
<td>Programming Languages</td>
</tr>
<tr>
<td>Intro to Computer Science II</td>
<td>Advanced Data Structures and Algorithm Analysis</td>
<td>Software Systems Development</td>
<td>Operating Systems</td>
</tr>
<tr>
<td>Biology I</td>
<td>Numerical Methods</td>
<td>Computer Science Elective</td>
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<tr>
<td>Physical Science I</td>
<td>Computer Organization and Design</td>
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<tr>
<td>Computer Science Elective</td>
<td>Object-Oriented Design</td>
<td>Computer Science Elective</td>
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<td>Computer Science Elective</td>
<td>Computer Science Concentration Elective</td>
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</tbody>
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**Legend**

- General Education
- Math
- Science
- Engineering
- Other
- Computer Science Concentration
- Other Computer Science Electives
- Engineering-Specific Electives

**Yearly Courses**

- **Year 1**: Intro to Computer Science, Discrete Structures, Operating Systems, Programming Languages
- **Year 2**: Intro to Computer Science II, Advanced Data Structures and Algorithm Analysis, Software Systems Development, Operating Systems
- **Year 3**: Biology I, Numerical Methods, Computer Science Elective, Computer Science Concentration Elective
- **Year 4**: Physical Science I, Computer Organization and Design, Computer Science Elective, Computer Science Concentration Elective

**General Education Requirements**

- General Ed: Humanities
- General Ed: English Comp I
- General Ed: English Comp II
- General Ed: Social Sciences
- General Ed: Arts
- Communication Studies

[Detailed curriculum flow-charts: https://www.lsu.edu/eng/current/resources/flowcharts.php]