

# COMPUTER SCIENCE + EDUCATION, BS

for the degree of Bachelor of Science Major in Computer Science + Education

The **Computer Science + Education, BS** is sponsored jointly by the Siebel School of Computing and Data Science and the Department of Curriculum & Instruction. The major in Computer Science and Education is a flexible program for undergraduate students who plan to pursue careers in either field and offers two foci of concentration.

- **Learning Sciences** (<http://catalog.illinois.edu/undergraduate/education/computer-science-education-bs/learning-sciences/>)
- **Secondary Education** (<http://catalog.illinois.edu/undergraduate/education/computer-science-education-bs/secondary-education/>)

The Learning Sciences concentration focuses on how technology can be designed and developed to further education. Social media, virtual and augmented reality, data analytics, mobile and wearable devices have created an opportunity to transform teaching and learning in both formal and informal contexts. This degree will prepare students for advanced study at the graduate level, as well as immediate entry into the workforce at software companies, publishers, school districts, game design companies, and research non-profits.

The Secondary Education concentration provides the coursework and field experience for students to be licensed to teach computer science in grades 5-12. The degree will prepare students to join the workforce as teachers in the state of Illinois, providing them with the knowledge necessary to teach and develop computer science curricula.

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## Sample Sequence

*This sample sequence is intended to be used only as a guide for degree completion. All students should work individually with their academic advisors to decide the actual course selection and sequence that works best for them based on their academic preparation and goals. Enrichment programming such as study abroad, minors, internships, and so on may impact the structure of this four-year plan. Course availability is not guaranteed during the semester indicated in the sample sequence.*

*Students must fulfill their Language Other Than English requirement by successfully completing a third level of a language other than English. See the corresponding section on the Degree and General Education Requirements page (<http://catalog.illinois.edu/general-information/degree-general-education-requirements/>).*

First Year	
First Semester	Hours
EDUC 101	1
CS 124	3
Composition I or General Education course	4
Language Other Than English (3rd level)	4

MATH 220 or 221	4
	<b>16</b>

### Total Hours 16

#### First Year

Second Semester	Hours
Composition I or General Education course	4
CS 128	3
CS 173	3
MATH 231	3
General Education course	3
	<b>16</b>

### Total Hours 16

#### Second Year

First Semester	Hours
CS 222	1
CS 225	4
MATH 225, 227, or 257	3
General Education course	3
Concentration course	3
	<b>14</b>

### Total Hours 14

#### Second Year

Second Semester	Hours
CS 233 or 340	4
CS 361	3
General Education course (Humanities & Arts with a Cultural Studies designation)	3
General Education course	3
Concentration course	3
	<b>16</b>

### Total Hours 16

#### Third Year

First Semester	Hours
CS 341 (or CS 400-level course)	4
General Education course	3
General Education course	3
General Education course	3
Concentration course	3
	<b>16</b>

### Total Hours 16

#### Third Year

Second Semester	Hours
CS 374	4
Concentration course	3
Concentration course	3
Concentration course	3

Elective course or CS 400-level course	3
	<b>16</b>

**Total Hours 16****Fourth Year**

	Hours
<b>First Semester</b>	
CS 357 or 421	3
Concentration course	3
Concentration course	3
Concentration course	3
Elective course	2
	<b>14</b>

**Total Hours 14****Fourth Year**

	Hours
<b>Second Semester</b>	
Concentration course	3
Concentration course	3
Concentration course	3
General Education course	3
	<b>12</b>

**Total Hours 12****Total Hours: 120**

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1. Students will acquire deep knowledge of computer science as it relates to the field of Education
2. (Secondary Education concentration only): Students will effectively plan and implement relevant, responsive instruction for high school students.
3. (Licensure concentration only): Students will use assessment data to drive decisions and solve problems in and out of the classroom.
4. Students will display the expectations of professionalism related to success in the field of education and beyond (Fairness, commitment to collaboration, community, reflective practice, and attention to 21st century skills and practices).

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## College of Education

Education Building  
1310 S. Sixth Street  
Champaign, IL 61820  
College of Education website (<https://education.illinois.edu/>)

## Siebel School of Computing and Data Science

306 Education Building  
Curriculum & Instruction email: [ci@education.illinois.edu](mailto:ci@education.illinois.edu)  
(217) 244-8286

Department of Curriculum & Instruction website (<https://education.illinois.edu/ci/>)  
Department of Curriculum & Instruction faculty (<https://education.illinois.edu/faculty-finder/?dept=Curriculum%20Instruction>)

## Office of Undergraduate Programs

110 Education Building  
Education Student Academic Affairs email: [sao@education.illinois.edu](mailto:sao@education.illinois.edu)  
(217) 333-2800  
Admissions & Academics website (<https://education.illinois.edu/programs/undergrad/>)  
Student Academic Affairs website (<https://education.illinois.edu/student-resources/undergraduate/undergraduate-advising-support/>)

## Department of Computer Science

Thomas M. Siebel Center for Computer Science  
201 N Goodwin Avenue, Urbana IL 61801  
Department of Computer Science website (<https://cs.illinois.edu/>)  
Department of Computer Science faculty (<https://cs.illinois.edu/about/people/all-faculty/>)  
Computer Science + Education website (<https://cs.illinois.edu/academics/undergraduate/degree-program-options/cs-x-degree-programs/computer-science-education/>)