

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 Department of Computer 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	Second Semester	Hours
EDUC 101	4	1 Composition I or General Education course	
CS 124	3	3 CS 128	3

Composition I or General Education course	4 CS 173	3
Language Other Than English (3rd level) or Elective course	4 MATH 231	3
MATH 220 or 221	4 General Education course	3
16		16

Second Year

First Semester	Hours	Second Semester	Hours
CS 222	1	CS 233 or 340	4
CS 225	4	CS 361	3
MATH 225, 227, or 257	3	General Education course (Humanities & Arts with a Cultural Studies designation)	3
General Education course	3	General Education course	3
Concentration course	3	Concentration course	3
14		16	

Third Year

First Semester	Hours	Second Semester	Hours
CS 341 (or CS 400-level course)	4	CS 374	4
General Education course	3	Concentration course	3
General Education course	3	Concentration course	3
General Education course	3	Concentration course	3
Concentration course	3	Elective course (or CS 400-level course)	3
16		16	

Fourth Year

First Semester	Hours	Second Semester	Hours
CS 357 or 421	3	Concentration course	3
Concentration course	3	Concentration course	3
Concentration course	3	Concentration course	3
Concentration course	3	General Education course	3
Elective course	2		
14		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/>)

Department of Curriculum & Instruction

306 Education Building
Curriculum & Instruction email: 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: saao@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
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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/>)