

# BS in Computer Science and Economics

In order to be considered for admission to the BS in Computer Science and Economics, students must have at least one C and one B in MATH 180 and CS 111/CS 112/CS 113/MCS 160, with an average math/science/engineering GPA of 2.50/4.00, and at least a B in ECON 120. Prior to completing these requirements, students may declare Pre-Computer Science and Economics only. Transfer students who are admitted to UIC with all academic requirements complete should speak with their academic advisor at orientation about next steps. The College of Liberal Arts and Sciences reserves the right to restrict the enrollment of students into its academic programs based on space availability.

## Degree Requirements

To earn a Bachelor of Science in Computer Science and Economics degree from UIC, students need to complete university, college, and department degree requirements. The degree requirements for the BS in Computer Science and Economics are outlined below. Students should consult the College of Liberal Arts and Sciences section for additional degree requirements and college academic policies.

Code	Title	Hours
<b>Summary of Requirements</b>		
Requirements for the Curriculum		120
<b>Total Hours</b>		<b>120</b>

## Requirements for the Curriculum

Code	Title	Hours
<b>Required Courses</b>		
ENGL 160	Academic Writing I: Writing in Academic and Public Contexts	3
ENGL 161	Academic Writing II: Writing for Inquiry and Research	3
Foreign Language (the equivalent of two years of a single language at the college level)		0-16
Exploring World Cultures course <sup>a</sup>		3
Understanding the Creative Arts course <sup>a</sup>		3
Understanding the Past course <sup>a</sup>		3
Two Analyzing the Natural World courses (classes with labs only) <sup>a</sup>		8-10
MATH 180	Calculus I <sup>b,c</sup>	4
MATH 181	Calculus II <sup>c</sup>	4
STAT 381	Applied Statistical Methods I	3
Select one of the following:		3-4
CS 111	Program Design I	
CS 112	Program Design I in the Context of Biological Problems	
CS 113	Program Design I in the Context of Law and Public Policy	
MCS 160	Introduction to Computer Science	
CS 141	Program Design II	3
CS 151	Mathematical Foundations of Computing	3
CS 211	Programming Practicum	3

CS 251	Data Structures	4
CS 407	Economics and Computation	3
Four courses, selected from the following:		12
CS 342	Software Design	
CS 351	Advanced Data Structure Practicum	
CS 361	Systems Programming	
CS 377	Ethical Issues in Computing	
CS 402	Algorithms in Practice	
CS 411	Artificial Intelligence I	
CS 412	Introduction to Machine Learning	
CS 418	Introduction to Data Science	
CS 421	Natural Language Processing	
CS 424	Visualization and Visual Analytics	
CS 453	Introduction to Parallel and Distributed Processing	
CS 474	Object-Oriented Languages and Environments	
CS 480	Database Systems	
ECON 120	Principles of Microeconomics <sup>d</sup>	3-4
ECON 121	Principles of Macroeconomics <sup>d</sup>	3-4
ECON 220	Microeconomics: Theory and Applications	3
ECON 221	Macroeconomics in the World Economy: Theory and Applications	3
Select one of the following:		3
ECON 300	Econometrics	
ECON 400	Honors Econometrics	
ECON 395	Research and Writing in Economics <sup>e</sup>	1
Two ECON courses numbered above 320 <sup>e,f</sup>		6
One ECON course numbered above 400 <sup>f</sup>		3
Electives <sup>g</sup>		9-30
<b>Total Hours</b>		<b>120</b>

- a Students should consult the General Education section of the catalog for a list of approved courses.
- b This course fulfills the LAS Quantitative Reasoning requirement.
- c This course is approved for the Analyzing the Natural World (without lab) General Education category.
- d ECON 120 and ECON 121 are required Economics courses for the program and fulfill the Understanding the Individual and Society and Understanding U.S. Society general education requirements.
- e ECON 395 fulfills the Writing-in-the-Discipline requirement. Concurrent registration in a designated 300-level economics course is required.
- f ECON 400 may not count as an elective toward these requirements.
- g Students are encouraged to take PHIL 113 as one of their electives.

## Recommended Plan of Study

Course	Title	Hours
<b>First Year</b>		
<b>Fall Semester</b>		
ENGL 160	Academic Writing I: Writing in Academic and Public Contexts	3
MATH 180	Calculus I <sup>a</sup>	4
ECON 120	Principles of Microeconomics <sup>b</sup>	4
General Education Core course		3
<b>Hours</b>		<b>14</b>

**Spring Semester**

ENGL 161	Academic Writing II: Writing for Inquiry and Research	3
MATH 181	Calculus II	4
CS 111	Program Design I	3
General Education Core course		3
General Education Core course (with lab)		4
<b>Hours</b>		<b>17</b>

**Second Year****Fall Semester**

Foreign Language I		4
CS 141	Program Design II	3
ECON 121	Principles of Macroeconomics	4
ECON 220	Microeconomics: Theory and Applications	3
<b>Hours</b>		<b>14</b>

**Spring Semester**

Foreign Language II		4
CS 151	Mathematical Foundations of Computing	3
STAT 381	Applied Statistical Methods I	3
ECON 221	Macroeconomics in the World Economy: Theory and Applications	3
General Education Core course		3
<b>Hours</b>		<b>16</b>

**Third Year****Fall Semester**

Foreign Language III		4
CS 211	Programming Practicum	3
CS 251	Data Structures	4
ECON 300	Econometrics	3
<b>Hours</b>		<b>14</b>

**Spring Semester**

Foreign Language IV		4
CS 407	Economics and Computation	3
CS Elective		3
ECON 300-Level Elective		4
ECON 395		1
<b>Hours</b>		<b>15</b>

**Fourth Year****Fall Semester**

CS Elective		3
CS Elective		3
ECON Elective		3
General Education Core course		3
Elective		3
<b>Hours</b>		<b>15</b>

**Spring Semester**

CS Elective		3
ECON Elective		3
General Education Core course (with lab)		4
Electives		5
<b>Hours</b>		<b>15</b>

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**Total Hours** **120**