BS in Computer Science and Philosophy

Program Code: TBD

Admissions Requirements

BS in CS and (LAS Discipline) degree programs do not accept direct admits. Students interested in the BS in Computer Science and Philosophy would apply to enter UIC as a pre-major. To be considered for admission to the BS in Computer Science and Philosophy, students must have:

- at least a C in MATH 180;
- at least a C in one of: CS 111, CS 112, CS 113, or MCS 160;
- an average math/science GPA of 2.50/4.00; and
- at least a B in a non-logic, 3-hour, 100-level course in Philosophy (excluding PHIL 102).

In the event that transfer students are admitted to UIC with the pre-major requirements already completed, they will be instructed to discuss next steps with their LAS academic advisor at orientation.

Degree Requirements

To earn a Bachelor of Science in Computer Science and Philosophy degree from UIC, students need to complete university, college, and department degree requirements. The degree requirements for the BS in Computer Science and Linguistics 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
Summary of Requirements		
Requirements for the Curriculum		120
Total Hours		**120**

Requirements for the Curriculum

The requirements for the curriculum include the courses necessary to complete the General Education and Writing-in-the-Discipline requirements described in the College of Liberal Arts and Sciences section.

Code	Title	Hours
Required Courses		
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 [a]		3
Understanding the Creative Arts course [a]		3
Understanding the Individual and Society course [a]		3
Understanding the Past course [a]		3
Understanding U.S. Society course [a]		3
Two Analyzing the Natural World courses (classes with labs only)		8-10
MATH 180	Calculus I [b]	4
MATH 181	Calculus II	4
MCS 160	Introduction to Computer Science	4
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
Select one of the following:		3
CS 301	Languages and Automata	
MCS 441	Theory of Computation I [c]	
CS 401	Computer Algorithms I	3
Select three of the following:		9-11
CS 261	Machine Organization	
CS 341	Programming Language Design and Implementation	
CS 342	Software Design	
CS 351	Advanced Data Structure Practicum	
CS 361	Systems Programming	
CS 378	Framework-based Software Development for Hand-held Devices	
CS 402	Algorithms in Practice	
CS 407	Economics and Computation	
CS 411	Artificial Intelligence I	
CS 415	Computer Vision I	
CS 418	Introduction to Data Science	
CS 421	Natural Language Processing	
CS 422	User Interface Design and Programming	
CS 424	Visualization and Visual Analytics	
CS 425	Computer Graphics I	
CS 426	Video Game Design and Development	
CS 427	Creative Coding	
CS 428	Virtual, Augmented and Mixed Reality	
CS 453	Introduction to Parallel and Distributed Processing	
CS 474	Object-Oriented Languages and Environments	
CS 475	Object-Oriented Programming	
CS 478	Software Development for Mobile Platforms	
CS 480	Database Systems	
CS 489	Human Augmentics	
One 100-level PHIL course (excluding PHIL 102) [d]		3
PHIL 210	Symbolic Logic	3
PHIL 215	Philosophy of Computing and Machine Learning	3

PHIL 300	Fundamentals of Philosophical Discourse [e]	3
PHIL 315	Ethics of Computing and Artificial Intelligence	3
Three PHIL courses (9 hours) at the 200 level or above, of which:		9
at least to courses (6 hours) must be at the 400 level		
at least one of the following courses in value theory:		
PHIL 230	Topics in Ethics and Political Philosophy	
PHIL 231	Philosophy of Race and Racism	
PHIL 232	Sex Roles: Moral and Political Issues	
PHIL 432	Topics in Ethics	
PHIL 433	Topics in Social/Political Philosophy	
LING 350	Are Algorithms Biased	
Electives		4-25
Total Hours		**120**

a *Students should consult the General Education section of the catalog, particularly the Individual and Society section, for a list of approved courses. Note that PHIL 116 does not satisfy general education requirements.*

b *MATH 180 fulfills the LAS Quantitative Reasoning requirement.*

b *MCS 441 has a prerequisite of MATH 215.*

d *Students are strongly encouraged to satisfy the 100-level PHIL requirement with a course that counts toward General Education.*

e *PHIL 300 fulfills the LAS Writing-in-the-Discipline requirement.*

Recommended Plan of Study

Course	Title	Hours
First Year		
Fall Semester		
ENGL 160	Academic Writing I: Writing in Academic and Public Contexts	3
MATH 180	Calculus I	4
CS 111 or CS 112 or CS 113 or MCS 160	Program Design I or Program Design I in the Context of Biological Problems or Program Design I in the Context of Law and Public Policy or Introduction to Computer Science	3-4
Understanding the Past course		3
	Hours	**13-14**
Spring Semester		
ENGL 161	Academic Writing II: Writing for Inquiry and Research	3
MATH 181	Calculus II	4
CS 141	Program Design II	3
PHIL 100-level course (excluding PHIL 102) [a]		3
Understanding the Creative Arts course		3
	Hours	**16**
Second Year		
Fall Semester		
STAT 381	Applied Statistical Methods I	3
CS 151	Mathematical Foundations of Computing	3
CS 211	Programming Practicum	3
PHIL 210	Symbolic Logic	3
Foreign Language		4
	Hours	**16**
Spring Semester		
CS 251	Data Structures	4
CS 301	Languages and Automata	3
PHIL 215	Philosophy of Computing and Machine Learning	3
Foreign Language		4
Understanding U.S. Society course		3
	Hours	**17**
Third Year		
Fall Semester		
CS 401	Computer Algorithms I (or CS Selective) [b]	3
PHIL 315	Ethics of Computing and Artificial Intelligence	3
Foreign Language		4
Analyzing the Natural World course (with lab)		4-5
	Hours	**14-15**
Spring Semester		
CS 401	Computer Algorithms I (or CS Selective) [b]	3
PHIL Elective [c]		3
Foreign Language		4
Understanding the Individual and Society course		3
Electives		2-3
	Hours	**15-16**
Fourth Year		
Fall Semester		
PHIL 300	Fundamentals of Philosophical Discourse	3
CS Selective [b]		3
PHIL Elective [c]		3
Analyzing the Natural World course (with lab)		4-5
	Hours	**13-14**
Spring Semester		
PHIL Elective [c]		3
CS Selective [b]		3
Exploring World Cultures course		3
Electives		6
	Hours	**15**
	Total Hours	**120**

a *Students are strongly encouraged to select a 100-level PHIL course that satisfies a General Education requirement. Students should consult the General Education section of the catalog, particularly the Individual and Society section, for a list of approved courses. Note that PHIL 116 does not satisfy any General Education requirements.*

b *See Required Courses section for CS courses that satisfy this requirement.*

c *PHIL electives must be at the 200 level or above, including at least two courses (6 credits) at the 400 level. One elective course in value theory must be chosen from: PHIL 221, PHIL 230, PHIL 232, PHIL 357, PHIL 432, PHIL 433, LING 350.*