

COMPUTER SCIENCE AND ASTRONOMY

For the Degree of Bachelor of Science in Liberal Arts and Sciences

Major in Computer Science (<https://cs.illinois.edu/academics/undergraduate/degree-program-options/cs-x-degree-programs/#requirements>) **and Astronomy** (<https://astro.illinois.edu/academics/undergraduate-program/computer-science-astronomy-major>)

Please see the computer science advisor as well as the astronomy advisor.

Computer Science email: academic@cs.illinois.edu

Astronomy email: astronomy@illinois.edu

Minimum required major coursework normally equates to 66 hours.

General education: Students must complete the Campus General Education (<https://courses.illinois.edu>) requirements including the campus general education language requirement.

Twelve hours of 300- and 400-level courses in the major must be taken on this campus.

A Major Plan of Study Form must be completed and submitted to the LAS Student Affairs Office by the beginning of the fifth semester (60-75 hours). Please see the computer science advisor as well as the astronomy advisor.

Minimum hours required for graduation: 120 hours

Code	Title	Hours
Required Computer Science Coursework		
CS 100	Freshman Orientation (recommended) ¹	0-1
CS 125	Intro to Computer Science	4
CS 126	Software Design Studio	3
CS 173	Discrete Structures	3
CS 225	Data Structures	4
CS 233	Computer Architecture	4
CS 241	System Programming	4
Choose one of the following:		3
STAT 200	Statistical Analysis	
STAT 212	Biostatistics	
CS 361	Probability & Statistics for Computer Science	
CS 374	Introduction to Algorithms & Models of Computation	4
CS 421	Programming Languages & Compilers	3
Mathematics (may also fulfill the General Education Quantitative Reasoning I and II requirements)		
MATH 221	Calculus I or MATH 22Calculus	4-5
MATH 225	Introductory Matrix Theory	2
MATH 231	Calculus II	3

Required Astronomy Coursework - Minimum of 24 Hours

Physics and Mathematics Courses ²		
PHYS 211	University Physics: Mechanics	4
PHYS 212	University Physics: Elec & Mag	4
MATH 241	Calculus III	4
Intermediate and Advanced Astronomy Courses		
12		
Select 12 hours from the following. Taking one of the computation-intensive ASTR 496 Seminar in Astronomy sections is strongly recommended		
ASTR 330	Extraterrestrial Life	
ASTR 350	The Big Bang, Black Holes, and the End of the Universe	
ASTR 390	Individual Study	
ASTR 404	Stellar Astrophysics	
ASTR 405	Planetary Systems	
ASTR 406	Galaxies and the Universe	
ASTR 414	Astronomical Techniques	
ASTR 496	Seminar in Astronomy (check with advisor for appropriate topics)	

¹ CS 100 is an orientation course aimed at first-year students, so students who declare the major after the freshman year are not required to complete it.

² ASTR 210 is highly recommended.