

History and Computer Science (BSHisCS)

This program provides a strong technical background and solid foundation in the core sciences and related mathematical disciplines for students planning to begin careers upon graduation and for those interested in graduate study in history, computer science, or a combination of both.

Total Required Hours: 120

Course	Title	Hours
Year 1		
Semester 1		
C S 312	Introduction to Programming	3
M 408C	Differential and Integral Calculus	4
U.S. History (060)		3
RHE 306	Rhetoric and Writing	3
First-Year Signature Course (090)		3
Hours		16
Semester 2		
C S 311	Discrete Mathematics for Computer Science	3
C S 314	Data Structures	3
U.S. History (060)		3
Hours chosen from: HIS Geographical Area		3
Communication (010)		3
Hours		15
Year 2		
Semester 1		
C S 429	Computer Organization and Architecture	4
SDS 321	Introduction to Probability and Statistics	3
HIS 320W	Thinking Like a Historian	3
Visual and Performing Arts (050)		3
Social and Behavioral Sciences (080)		3
Hours		16
Semester 2		
C S 439	Principles of Computer Systems	4
M 340L	Matrices and Matrix Calculations	3
Hours chosen from: Upper-division HIS		3
GOV 310L	American and Texas Government	3
Hours		13
Year 3		
Semester 1		
C S 331	Algorithms and Complexity	3
Hours chosen from: Upper-division C S		3
Humanities (040)		3
Foreign Language other than English, Intermediate Proficiency		6
Hours		15
Semester 2		
Hours chosen from: Upper-division C S		3
Hours chosen from: HIS Geographical Area		3
Hours chosen from: BIO, CHEM, or PHY		3
Foreign Language other than English, Intermediate Proficiency		6
Hours		15
Year 4		
Semester 1		
C S 349	Contemporary Issues in Computer Science	3
Hours chosen from: HIS Geographical Area		3
Hours chosen from: BIO, CHEM, or PHY		3
Hours chosen from: Upper-division HIS		3
Free Elective		3
Hours		15

Semester 2		
C S 379C	History and Computer Science Capstone	3
GOV 312L	Issues and Policies in American Government	3
Cultural Expression, Human Experience, and Thought (may not also be counted toward Core Curriculum)		3
Free Elective		3
Additional Social Science (may not also be counted toward Core Curriculum)		3
Hours		15
Total Hours		120

Requirements

All requirements are listed below, starting with the most specialized moving to the most general. Additional requirements may follow the table, so be sure to read the entire page. Some required courses listed below may also satisfy [General Education](#) requirements, including [Core Curriculum](#).

Code	Title	Hours
Degree		
Mathematics		
Choose a sequence below:		4
Sequence 1:		
M 408C	Differential and Integral Calculus	
Sequence 2:		
M 408N	Differential Calculus for Science	
M 408S	Integral Calculus for Science	
M 340L	Matrices and Matrix Calculations	3
or M 341	Linear Algebra and Matrix Theory	
SDS 321	Introduction to Probability and Statistics	3
or M 362K	Probability I	
Computer Science		
C S 311	Discrete Mathematics for Computer Science	3
or C S 311H	Discrete Mathematics for Computer Science: Honors	
C S 331	Algorithms and Complexity	3
or C S 331H	Algorithms and Complexity: Honors	
C S 312	Introduction to Programming	3
C S 314	Data Structures	3
or C S 314H	Data Structures: Honors	
C S 429	Computer Organization and Architecture	4
or C S 429H	Computer Organization and Architecture: Honors	
C S 439	Principles of Computer Systems	4
or C S 439H	Principles of Computer Systems: Honors	
C S 349	Contemporary Issues in Computer Science	3
Hours chosen from: Upper-division C S electives		6
C S 347	Data Management (recommended)	
C S 354P	Game Programming Paradigms (recommended)	
C S 363M	Principles of Machine Learning I (recommended)	
C S 363H	Principles of Machine Learning I: Honors (recommended)	
C S 364M	Principles of Machine Learning II (recommended)	
C S 103F	Ethical Foundations of Computer Science (recommended)	
Upper-division C S (other)		
History		
Hours chosen from: US History coursework (at least three of these hours must be taken in residence)		6
Hours chosen from: HIS, covering three different geographical areas		9
Africa		

Asia		
Europe		
Latin America		
Middle East		
Transnational		
Hours chosen from: Upper-division HIS electives		6
HIS 322D	The Scientific Revolution of the Seventeenth Century (recommended)	
HIS 322G	History of the Modern Life Sciences (recommended)	
HIS 322M	History of Modern Science (recommended)	
HIS 322R	Biology, Behavior, and Injustice (recommended)	
HIS 322S	The History of Genetics and Eugenics (recommended)	
HIS 329P	History of the Atomic Bomb (recommended)	
HIS 329U	Perspectives on Science and Mathematics (recommended)	
Upper-division HIS (other)		
HIS 320W	Thinking Like a Historian	3
Secondary Science		
Hours chosen from a single sequence below:		6
<i>Biology Sequence</i>		
Choose a sequence below:		
Sequence 1:		
BIO 311C	Introductory Biology I	
BIO 311D	Introductory Biology II	
Sequence 2:		
BIO 315H	Advanced Introduction to Genetics: Honors	
BIO 325H	Genetics: Honors	
<i>Chemistry Sequence</i>		
Choose a sequence below:		
Sequence 1:		
CH 301	Principles of Chemistry I	
CH 302	Principles of Chemistry II	
Sequence 2:		
CH 301C	Foundations of Chemistry I	
CH 302C	Foundations of Chemistry II	
<i>Physics Sequence</i>		
Choose a sequence below:		
Sequence 1:		
PHY 303K	Engineering Physics I	
PHY 105M	Laboratory For Physics 302K, 303K, and 317K	
PHY 303L	Engineering Physics II	
PHY 105N	Laboratory For Physics 302L, 303L, and 317L	
Sequence 2:		
PHY 301	Mechanics	
PHY 101L	Laboratory for Physics 301	
PHY 316	Electricity and Magnetism	
PHY 116L	Laboratory for Physics 316	
Sequence 3:		
PHY 317K	General Physics I	
PHY 105M	Laboratory For Physics 302K, 303K, and 317K	
PHY 317L	General Physics II	
PHY 105N	Laboratory For Physics 302L, 303L, and 317L	
Sequence 4:		

PHY 302K	General Physics Technical Course: Mechanics, Heat, and Sound	
PHY 105M	Laboratory For Physics 302K, 303K, and 317K	
PHY 302L	General Physics Technical Course: Electricity and Magnetism, Light, Atomic and Nuclear Physics	
PHY 105N	Laboratory For Physics 302L, 303L, and 317L	
Integrated Capstone		
Hours chosen from: (only one course may count for the degree)		3
C S 379C	History and Computer Science Capstone	
HIS 379C	History and Computer Science Capstone	
<i>Subtotal</i>		72
<i>Liberal Arts</i>		
English Literature (<u>Humanities (040)</u> may be counted)		
C L 315	World Literature	3
or E 303D	Plan II World Literature Part II	
or E 316L	British Literature	
or E 316M	American Literature	
or E 316N	World Literature	
or E 316P	Masterworks of Literature	
or T C 303D	Plan II World Literature Part II	
<u>Foreign Language other than English, Intermediate Proficiency</u>		6
<u>Additional Social Science (may not also be counted toward Core Curriculum)</u>		3
<u>Cultural Expression, Human Experience, and Thought (may not also be counted toward Core Curriculum)</u>		3
<i>Subtotal</i>		15
Free electives: Additional coursework to reach total hours required.		9
<i>Subtotal</i>		9
General Education		
Remaining Core Curriculum (42 hours total)		24
<u>Foreign Language other than English, Beginning Proficiency</u>		
<i>Subtotal</i>		24
<u>College Requirements - Liberal Arts</u>		
<u>College Requirements - Natural Sciences</u>		
<u>General University Requirements</u>		
Total Hours		120

Additional Requirements and Policies

Students must fulfill both the University's general requirements for graduation and the college requirements. They must also earn a grade of at least C- in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in the General Information Catalog.

An undergraduate may not enroll in any computer science course more than once without written consent of an undergraduate advisor in computer science. No student may enroll in any computer science course more than twice. No student may take more than three upper-division computer science courses in a semester without written consent of an undergraduate advisor in computer science. All transfer coursework must be approved by faculty before it can count towards the degree, except where equivalency is specified by state regulation.

Bachelor of Science in History and Computer Science (BSHisCS) students may not earn a bachelor's degree nor transcript-recognized minor or certificate in history nor computer science.