Computer Science, Minor

A computer science minor is designed to provide the computer science skills and know-how you need to succeed in today's highly digital world. A minor requires completion of five CS courses—more than enough to gain proficiency while easily fitting around your major requirements. No prior programming experience is needed.

Looking to gain technical knowledge that directly applies to your major? Students have the option to pursue a Khoury meaningful minor.

Minor Requirements

Note: Khoury minors are only available to non–Khoury majors; students in Khoury-only or Khoury-combined degrees are not eligible for Khoury minors. A student may receive at most one Khoury minor, regardless of how many Khoury minors they qualify for.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

Required Courses

Code	Title	Hours
Computer Science Fundamental Courses		
All students can take a self-assessment to attempt to place out of CS 2000 and CS 2001. Students who place out of CS 2000 and CS 2001 will instead substitute 4-5 SH of CS, CY, or DS coursework at the 3000 level or higher not otherwise required in the degree.		
CS 2000 and CS 2001	Introduction to Program Design and Implementation and Lab for CS 2000	5
CS 2100 and CS 2101	Program Design and Implementation 1 and Lab for CS 2100	5
CS 3100 and CS 3101	Program Design and Implementation 2 and Lab for CS 3100	5

Computer Science Electives

Code	Title	Hours
Complete two courses that are not already required in the following ranges:		8
CS 2500 to CS 7999, except CS 3950, CS 4950, CS 5010, and CY 4170		
CY 3000 or higher, except CY 4930		
One course from Khoury meaningful minors list (see below).		

Khoury Meaningful Minors

The concept of "Khoury meaningful minors" allows students the chance to personalize a computer science minor to meet individual academic needs and interests. Students may take *one elective* related to computation or information from a pre-approved list of courses offered across the university rather than from within Khoury. This allows students to integrate the minor with a course in their own major or with a course in another area of interest. Students may of course choose to take all electives in the minor within Khoury if they wish.

Code	Title	Hours
Bouvé Health Sciences		
HINF 5101	Introduction to Health Informatics and Health Information Systems	
HINF 5102	Data Management in Healthcare	
HINF 5300	Personal Health Interface Design and Development	
HINF 5301	Evaluating Health Technologies	
Arts, Media and Design		
ARTD 2360	Introduction to Photography	
ARTD 2370	Animation Basics	
ARTD 2380	Video Basics	
ARTG 2260	Programming Basics	
ARTG 2400	Interaction Design Principles	
ARTG 3250	Physical Computing	
ARTG 3451	Information Design 1	
ARTG 3700	Interaction Design 2: Mobile	
ARTG 5100	Information Design Studio 1: Principles	

ARTG 5110	Information Design History
ARTG 5120	Research Methods for Design
COMM 2105	Social Networks
JRNL 3610	Digital Storytelling and Social Media
MUST 1220	Introduction to Music Technology
Engineering	
BIOE 2365	Bioengineering Measurement, Experimentation, and Statistics
EECE 2160	Embedded Design: Enabling Robotics
EECE 2322 and EECE 2323	Fundamentals of Digital Design and Computer Organization and Lab for EECE 2322
EECE 3324	Computer Architecture and Organization
EECE 5639	Computer Vision
EECE 5640	High-Performance Computing
EECE 5644	Introduction to Machine Learning and Pattern Recognition
Khoury Computer Sciences	
CS 1100	Computer Science and Its Applications
CS 1800	Discrete Structures
IS 1500 or higher, except IS 4900	
Science	
BIOL 2301	Genetics and Molecular Biology
BIOL 3405	Neurobiology
BIOL 5587	Comparative Neurobiology
BINF 6200	Bioinformatics Programming
BINF 6308	Bioinformatics Computational Methods 1
BINF 6309	Bioinformatics Computational Methods 2
CHEM 5638	Molecular Modeling
ENVR 3300	Geographic Information Systems
ENVR 5563	Advanced Spatial Analysis
LING 3450	Syntax
LING 3452	Semantics
MATH 1260	Math Fundamentals for Games
MATH 2331	Linear Algebra
MATH 2341	Differential Equations and Linear Algebra for Engineering
MATH 3530	Numerical Analysis
MATH 4606	Mathematical and Computational Methods for Physics
PHYS 1130	Computing, Data, and Science
PSYC 3452	Sensation and Perception
PSYC 3458	Biological Psychology
PSYC 3464	Psychology of Language
PSYC 3466	Cognition
Social Science and Humanities	
ENGL 3340	Technologies of Text
PHIL 1105	Science and Pseudoscience
PHIL 1115	Introduction to Logic
PHIL 1145	Technology and Human Values
PHIL 2001	Ethics and Evolutionary Games
PHIL 4510	Philosophy of Science
PHIL 4515	Advanced Deductive Logic
or PHIL 4516	Advanced Inductive Logic
SOCL 2485	Environment, Technology, and Society
SOCL 4528	Technology and Society
D'Amore-McKim School of Business	
ACCT 3403	Advisory Services and Emerging Accounting Systems
ENTR 4501	Integrated Studies in Entrepreneurial Startups

MISM 2301	Introduction to Information Systems and Digital Technologies
MKTG 3401	Marketing Research
MKTG 3501	Marketing Analytics
MKTG 4508	Digital Marketing
SCHM 2301	Supply Chain and Operations Management
Statistics Courses	
CRIM 3700	Analyzing and Using Data on Crime and Justice
ECON 2350	Statistics for Economists
ECON 5105	Math and Statistics for Economists
ENVR 2500	Biostatistics
IE 3412	Engineering Probability and Statistics
MATH 2280	Statistics and Software
MATH 3081	Probability and Statistics
MATH 4581	Statistics and Stochastic Processes
MGSC 2301	Business Statistics
PHMD 3450	Research Methodology and Biostatistics
PHTH 2210	Foundations of Biostatistics
POLS 2400	Quantitative Techniques
PSYC 2320	Statistics in Psychological Research

Credit/GPA Requirement

20 semester hours required
2.000 GPA required in the minor