Computer Science

Computer scientists focus on the theory and practice of computing. They may pursue the design, analysis, and implementation of computer algorithms, study the theory of programming methods and languages, or design and develop software systems. Computer scientists may also work in the areas of artificial intelligence, database systems, parallel and distributed computation, human-computer interaction, computer graphics, operating systems, or computer systems analysis and administration.

Program Educational Objectives for Computer Science

Graduates who have earned a Bachelor's Degree in Computer Science, within a few years following graduation, will have demonstrated technical proficiency, collaborative activities, and professional development.

Technical Proficiency - Graduates will have achieved success and visibility in their chosen careers as shown by technical accomplishments in industry, government, entrepreneurial activities, or academia.

Collaborative Activities - Graduates will have exercised shared responsibilities through activities such as contributions to multi-person or multi-disciplinary technical projects, participation in professional society/organization functions, or performing collaborative research. In all such cases, graduates will have contributed to documentation of the collaborative activities.

Professional Development - Graduates will have demonstrated continual updating to extend their expertise and adapt to a changing environment through graduate studies; short courses, conferences, and seminars; or professional self-study. In addition, graduates will have demonstrated evidence of increasing technical and/or managerial impact.

Requirements for the Bachelor of Science in Computer Science Degree

A total of 128 credit hours❖ is required for the BSCS degree, as follows:

Computer Science (66 credit hours)	HRS	SEM	GRD
EECS 101 New Student Seminar (part of AE51)	1		
EECS 140 Intro to Digital Logic Design ♦	4		
EECS 168 Programming I ♦	4		
EECS 268 Programming II	4		
EECS 368 Program. Language Paradigms	3		
EECS 388 Embedded Systems	4		
EECS 448 Software Engineering I	4		
EECS 510 Intro to Theory of Computing	3		
EECS 560 Data Structures	4		
EECS 581 CS Design I (part of AE51)	3		
EECS 582 CS Design II (AE61)	3		
EECS 645 Computer Architecture	3		
EECS 660 Fund of Comp Algorithms	3		
EECS 662 Programming Languages	3		
EECS 665 Compiler Construction	4		
EECS 678 Intro to Operating Systems	4		
Senior Electives ✡	3		
	3		
	3		
	3		

Mathematics (21 credit hours)			
MATH 125 Calculus I (GE12)	4		
MATH 126 Calculus II	4		
MATH 127 Calculus III	4		
MATH 290 Elementary Linear Algebra	2		
MATH 526 Applied Mathematical Statistics I	3		
EECS 210 Discrete Structures	4		

Basic Science (11 credit hours)			
PHSX 210 General Physics I for Engrs (GE11)	3		
PHSX 216 General Physics I Lab (part of AE51)	1		
PHSX 212 General Physics II (GE3N)	3		
PHSX 236 General Physics II, Lab	1		
Natural Science Elective (one course) ⌘	3		

Professional Electives (3 credit hours) ☸	HRS	SEM	GRD
Professional Electives	3		

Satisfy GE21: Written Communication (6 hours) ❖			
(Typically satisfied by ENGL 101 & 102)	3		
	3		

Satisfy GE22: Oral Communication (3 hours) ❖			
(Typically satisfied by COMS 130)	3		

Arts/Humanities/Social Science (12 hours)			
Satisfy GE3H: Arts/Humanities❖	3		
Satisfy GE3S: Social Science❖	3		
Additional Arts/Humanities from GE3H list	3		
Additional Social Science from GE3S list	3		

Satisfy AE41 and AE42: Diversity, Global Awareness (6 hours)❖			
	3		
	3		

♦ Students with even KUIDs take EECS 140 in fall and EECS 168 in spring. Those with odd KUIDs take EECS 168 in fall and EECS 140 in spring.

❖ Means of satisfying KU Core Goals are chosen from a variety of options (see http://kucore.ku.edu). Hours listed are assuming the goals are satisfied with course work.

☸ Three hours of Professional Electives are chosen from a list of engineering, math, natural science or business courses (see page 4).

⌘ Natural Science Electives (1 course, 3 hours) are chosen from a list of courses (see page 4). Excess natural science hours count as Professional Elective hours.

✡ Twelve hours of Senior Electives are chosen from a list of EECS courses (see page 4).