COMPUTER SCIENCE - COMPREHENSIVE EMPHASIS REQUIREMENTS (BS)

Code	Title	Units
Major Requirements [1]		
Software Development Fundamentals:		
COMPSCI 172	INTRODUCTION TO JAVA	3
or COMPSCI 174	INTRODUCTION TO C++	
COMPSCI 220	INTERMEDIATE JAVA	3
or COMPSCI 221	INTERMEDIATE PROGRAMMING IN C#	
or COMPSCI 222	INTERMEDIATE C++	
COMPSCI 223	DATA STRUCTURES	3
Core Courses:		
COMPSCI 271	COMPUTER ORGANIZATION AND ASSEMBLY PROGRAMMING	3
COMPSCI 320	CONCEPTS OF PROGRAMMING LANGUAGES	3
COMPSCI 366	DATABASE MANAGEMENT SYSTEMS	3
COMPSCI 412	EMBEDDED SYSTEMS	3
COMPSCI 424	OPERATING SYSTEMS	3
COMPSCI 433	THEORY OF ALGORITHMS	3
COMPSCI 434	THEORY OF COMPUTATION	3
COMPSCI 476	SOFTWARE ENGINEERING	3
Ethics and Technology:		
LIBST 350	TECHNOLOGY AND SOCIAL RESPONSIBILITY	3
or PHILSPHY 245	CONTEMPORARY MORAL ISSUES	
or PHILSPHY 246	BUSINESS ETHICS	
Writing Requirement:		
ENGLISH 370	ADVANCED COMPOSITION	3
or PWP 371	WRITING IN THE SCIENCES	
or PWP 372	TECHNICAL AND PROFESSIONAL WRITING	
Electives:		**12**
Any undergraduate COMPSCI courses numbered 300 or higher		
Any graduate COMPSCI courses numbered 700 or higher [2]		
MATH 450	GRAPH THEORY	
MATH 471	NUMERICAL ANALYSIS	
Total Units		**51**

Code	Title	Units
Unique Requirement		
MATH 253	CALCULUS AND ANALYTIC GEOMETRY I	5
MATH 280	DISCRETE MATHEMATICS	3
or COMPSCI 215	DISCRETE STRUCTURES	
MATH 355	MATRICES AND LINEAR ALGEBRA	3
STAT 342	APPLIED STATISTICS	3

[1] An approved minor is not required for this major. However, students in this major may be able to add a minor in Mathematics or in Statistics by completing 8 to 13 additional units of mathematics courses. Consult your advisor or the Department of Mathematics for more information.

[2] Graduate courses (500+) may have additional requirements prior to enrollment by undergraduate students. See the Seniors Taking Graduate Courses Policy for further information. Undergraduate students taking graduate courses are not generally permitted to enroll in COMPSCI 789, COMPSCI 793, COMPSCI 798, or COMPSCI 799.