Starting from catalog year 2020 Fall

CS Major Requirements:

Systems/Scientific Applications Concentration

The major in computer science requires a minimum of **53** semester hours. To be admitted to the computer science major, students must complete **CS 180, CS 290, and CS 331** with grades of C or better. In addition, all CS courses counting toward the CS program major must be completed with a grade of "C" or better. Computer Science electives may include from 0-3 hours of 200-level courses. Students must adhere to all University Policies as indicated in the WKU catalog section "Academic Information." Additional requirements are as follows:

Systems/Scientific Applications Concentration

Requirements:

CS 180 Computer Science I	4
CS 290 Computer Science II	**4**
CS 331 Computer Science III	**3**
CS 325 Computer Organization and Architecture	3
CS 339 Discrete Structures	3
CS 351 Database Management Systems I	3
CS 360 Software Engineering	3
CS 382 Programming Languages	3
CS 396 Intermediate Software Project	3
CS 421 Data Structures and Algorithm Analysis	3
CS 425 Operating Systems I	3
CS 496 Senior Project and Professional Practice	3
CS Elective*	3
CS Elective*	3
CS Elective*	3
CS Elective*	3
STAT 301 Probability and Applied Statistics	3
Technical Course Total	**53**

Other requirements:

MATH 136 Calculus I	4
ENG 307 Technical Writing	3
Math Elective*	3 or 4
Math Elective*	3
Two natural science courses (at least 6 hrs; at least one course must include a lab) designed for Science/Engineering majors	**7**
Other Hours Total	**20 or 21**

List of Courses to Satisfy CS Elective*

CS 372 Mobile App Development	3
CS 381 Introduction to Computer Networks	3
CS 443 Database Management Systems	3
CS 445 Operating Systems II	3

CS 446 Interactive Computer Graphics	3
CS 450 Computer Networks	3
CS 456 Artificial Intelligence	3
List of Courses to Satisfy Math Elective*	
MATH 137 Calculus II	4
MATH 305 Introduction to Mathematical Modeling	3
MATH 307 Introduction to Linear Algebra	3
MATH 331 Differential Equations	3
MATH 405 Numerical Analysis I	3
MATH 406 Numerical Analysis II	3
MATH 470 Introduction to Operations Research	3
MATH 473 Introduction to Graph Theory	3
STAT 401 Regression Analysis	**3**
STAT 402 Experimental Design	**3**