BYU Computer Science Major

Software Engineering Emphasis

Fall 2021 Requirements

Major (74-76 Hours)

1. Grades below C are not allowed in major courses.
2. Complete the following courses: CS 142, 202, 203, 204, 224, 235, 236, 240, 312, 324, 329, 340, 404, 452, 480, 481
3. Complete the following supporting courses: WRTG 316, Math 112, 113, 213, 215, and Phscs 121
4. Complete one of the following: Stat 121 or Stat 201
5. Complete a total of 4 elective courses from the follow three groups:

   (If CS 401R, 493R, 497R, 498R, or 501R is chosen, it must be taken for three credit hours)

Elective Information:

Students must complete a total of 4 elective courses. 2 from Elective A and 2 from Elective B. Courses may not double count for both Elective A and Elective B.

Guide only—please consult MyMap for full requirements.

Elective A (Choose 2 courses)

CS 260 Web Programming
CS 261 Web Programming
CS 330 Prog Languages
CS 360 Networks
CS 345 Operating Sys Dsgn
CS 365 User Experience
CS 356 Security
CS 453 Info Retrieval
CS 456 UI Software
CS 460 Networks
CS 462 Distributed Systems
CS 465 Security
CS 466 Verification & Valid
CS 467 Machine Learning
CS 472 Networks
CS 475 Comp Graphics
CS 476 Machine Learning
CS 478 Convex Optimization
CS 486 Distributed Systems
CS 493 Topics in CS
CS 497 Research
CS 498 Special Projects
CS 501R** Adv CS Topics
CS 513 Robust Control
CS 517 Artifical Intelligence
CS 549 Cryptography
MATH 411 Numerical Methods
MATH 431 Probability Theory
MATH 485 Cryptography

Elective B (Choose 2 courses)

CS 252 Intro Comp Theory
CS 356 User Experience
CS 393 Algorithms & Problem Solving
CS 394 Info Retrieval
CS 401R** Topics in CS
CS 405 Software Business
CS 412 Convex Optimization
CS 421 Machine Learning
CS 422 Networks
CS 426 Distributed Systems
CS 427 Database Modeling
CS 428 Verifiaction & Valid
CS 429 Test, Analyze, Verify
CS 430 Analytical Methods
CS 431 Convex Optimization
CS 432 Verification & Valid
CS 434 Software Engineering
CS 435 Database Modeling
CS 436 Testing & Quality Assurance
CS 437 Software Engineering
CS 438 Software Engineering
CS 439 Software Engineering
CS 440 Software Engineering
CS 441 Software Engineering
CS 442 Software Engineering
CS 443 Software Engineering
CS 444 Software Engineering
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MATH 334 Real Analysis