BYU Computer Science Major

Human Computer Interaction Emphasis

Fall 2026 Requirements

Major (74-75 Hours)

Grades below C- are not allowed in major courses.

1. Complete the following 11 courses: CS 111, 224, 235, 236, 240, 260, , 312, 340, 404
2. Complete the following supporting courses: WRTG 316, Math 112, 213, 215, and PHSCS 121,
3. Complete 1 of the following: STAT 121 or STAT 201
4. Complete one of the following: Math 113, Math 290 or STAT 230
5. Complete the following courses: CS 256, CS 356, CS 456
6. Complete one of the following: ANTHR 101, COMMS 101, PSYCH 111 or SOC 111.
7. Complete one of the following courses: STAT 230 or EXDM 300 (May not double count between requirements 4 and 7).
8. Complete 12 credit hours from the following options:

Option 2.1. Complete up to 12 hours from the following courses, CS 252, CS 324, CS 329, 330, 345, 355, 393, 401R**,412, 416, 418, 428, 430, 431, 450, 452, 453, 455, 460, 462, 465, 466, 470, 471, 473, 474, 479, 486, 501R**, 513, 556, 574, 575, 580

Option 2.2: Complete up to 3 hours from the following:

d. Up to 9 hours from the following courses: CS 493R**, 497R**, 498R**

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

Guide only---please consult MyMap for full requirements.

CORE

Freshman — Semester 1: Math 112 Calculus 1; CS 111 Intro to CS

Freshman — Semester 2: Math 113, or Math 290 or STAT 230; CS 235 Data Structures Req.142 or cs 111; CS 256 Intro to HCI

Sophomore — Semester 3: Stat 121 or 201 or Math 431 Stats or Prob Theory; CS 236 Discrete Structures Req. CS 235; CS 260 Web Programming Req: CS 142 or 111

Sophomore — Semester 4: Stat 230 or EXDM 300; CS 240 Adv Software Cons. Req. 235; CS 224 Intro to Comp Sys Reg. CS 235

Junior — Semester 5: Math 213 Elem Linear Algebra Req. Math 112; Math 215 Comp Linear Algebra Reg. Math 112; CS 356 Adv.Tech in HCI CS 256 & 260; CS 312 Algorithm Analysis

Junior — Semester 6: WRTG 316 Technical Writing; CS 340 Software Design Req. CS 240 & 260; CS 456 Mobile & Ubiquitous HCI RE. CS 240 & 356

Senior — Semester 7: PHSCS 121 Newtonian Mechanics; Elective A; Elective A; CS 404 Ethics in Comp Req. WRTG 316; ANTHR 101,COMMS 101,PSYCH 111 Or SOC 111; Elective A; Elective A Or B

Senior — Semester 8

Elective A

Complete 12 (required) up to 21 hours)

- CS 252 Intro Comp Theory Reg. 236
- CS 393 Collaborative Problem Solving Req. 312
- CS 430 Formal Verification CS 330 or Math 290
- CS 460 Networks Req: 324
- CS 473 Avd. Machine Learning 312,Math 215,Stat 121
- CS 556 Inter Soft Systems
- CS 324 Sys Programming CS 224
- CS 401R** Topics in CS
- CS 431 A. Lang & Compliers Req: 240
- CS 462 Distributed Systems Req: 260, 324
- CS 474 Deep Learning 312,Math 213, 215
- CS 574 Transformers for NLP Req: 270, 312
- CS 329 QA & DevOPs Req: 240 & 260
- CS 412 Convex Optimization Req: 240, Math 213 or 311
- CS 450 Computer Vision Req: 312, 355,Math 313
- CS 465 Security Req: 324
- CS 479 Machine Translation CS 240
- CS 575 Intro toNetwork Science Req: 312
- CS 330 Prog Languages Req: 240
- CS 416 Adv. Algorithms CS 312
- CS 452 Database Modeling Req: 240
- CS 466 Blockchain Tech CS 312
- CS 486 Verification & Valid Req: 312
- CS 580 Theory of Predictive Modeling
- CS 345 Operating Sys Dsgn Req: 224 & 240
- CS 418 Bioinformatics Algorithms Req:CS 2402
- CS 453 Info Retrieval Req: 240
- CS 470 Artificial Intelligence 312,Math 215,Stat 121
- CS 501R** Adv CS Topics
- CS 355 Interactive Graphic Req: 240,Math 213,215
- CS 428 Software Engineer Req: 340
- CS 455 Comp Graphics Req: 355,Math 213,215
- CS 471 Voice User Interfaces
- CS 513 Robust Control Req: Math 213, 215

Elective B

(Choose up to 3 hours)

- CS 493R** Comp. Competitions Req: 240
- CS 497R** Research
- CS 498R** Special Projects Req: 240

**Must be taken for 3 hours to fill the requirement

Key

- Core class
- Minor Class
- Elective Class
- Prerequisite
- May be taken concurrently

Updated 7/14/2025