

Checklist for BS in Software Development:

Required courses:

- 150-151. Programming I and II (3,3) Fall, Spring. or 170. Introduction to Software Development (5) Fall, Spring.
- 245. DATA STRUCTURES. (3) Fall, Spring.
- 250. INTERNET DEVELOPMENT I. (3) Fall, Spring.
- 268. COMPUTER ARCHITECTURE AND ASSEMBLER PROGRAMMING.(3) Fall, Spring.
- 301. SOFTWARE ENGINEERING. (3) Fall, Spring.
- 310. OPERATING SYSTEMS CONCEPTS. (3) Fall.
- 311. DATA COMMUNICATIONS AND NETWORKING. (3) Spring.
- 336. DATABASE CONCEPTS AND APPLICATIONS. (3) Spring.
- 345. OBJECT-ORIENTED PROGRAMMING. (3) Fall, Spring.
- 349. APPLIED ALGORITHMS.(3) Fall, odd years.
- 431. INTERNET DEVELOPMENT II. (3) Spring.
- 439. COMPUTING SEMINAR. (1) Fall, Spring.
- 440. CS SOFTWARE DEVELOPMENT PROJECT. (3) Spring.
- 445. GRAPHICAL USER INTERFACE PROGRAMMING. (3) Fall.
- Math 151, 171, or 201. COLLEGE ALGEBRA, PRE-CALC, or CALCULUS I. (3-5). Fall, Spring

Five of these elective Computing/Math courses must be chosen:

Computing:

- 328. NUMERICAL METHODS. (3) Spring, even years.
- 335. FILE STRUCTURES AND ACCESS METHODS. (3) Fall, odd years.
- 367. CO-OPERATIVE EDUCATION. (3) By arrangement with department chair.
- 425. PARALLEL PROGRAMMING. (3) Fall, even years.
- 430. ARTIFICIAL INTELLIGENCE. (3) Fall, even years.
- 446. COMPUTER GRAPHICS. (3) Spring, odd years.
- 450. INDEPENDENT STUDY. (1-3) Offered by special arrangement.
- 475. SELECTED TOPICS. (3) Offered on demand. **May be repeated as content varies.**

Math:

- 201. CALCULUS I (5) Fall, Spring. **May not be used here if used in core above.**
- 260. DISCRETE MATH (3) Fall, Spring.

Liberal Arts courses:

- 8 credits of textual Bible (Bnew, Bold, Byfe 338) including some of both testaments
- Eng 111 or 113
- Eng 211
- ComO 101
- Psy 201 or EdFd 203
- Econ 201, Pols 205 or Socs 203
- Kins 101
- Kins activity course
- Biol 111, 113 or any Biol course 111 or higher
- PhS 111, 112, 113, 115, 116, or any Physics or Chemistry
- Art 101, Mus 101 or Thea 101
- Eng 201 or 202
- Hist 101 or 102
- Hist 110 or 111
- 6 credits of Global Lit from Anth 250; Art 434; Biol 250 (cannot count for Biol if used here); Bmis 280, 387, or 388; Engr 330 & 331; Geog 302 or 303; Hist 209, 211, 213, or 215, Hnrs 204; Hum 201; Hum 273; IB 325; IB 345; Inst 310; Nurs 305 or 413; Nurs 344; Pols 202; Socs 301; Swk 360; Thea 306; any modern foreign language (not Latin, Hebrew, or Biblical Greek)
- Minimum of 45 upper level credits (250 and above)
- Minimum of 128 credits total needed for graduation

Summary of hours for the B.S. in Software Development, by category:

- Major Core Courses: 42-43 credits of CS and 3-5 of Math for a total of 45-48 credits
- Major Elective Courses: 9-15 credits of CS and 0-8 of Math for a total of 15-17 credits
- Total for major is 60-65 credits.
- Total for Liberal Arts is 50 credits (Normal Liberal Arts minus Math, which is built into the major)
- Remaining Bible is 8 credits (not included in normal Liberal Arts)
- Electives: 5 to 10 credits, depending on choices made in selection of major courses.
- Total: 128 credits