

Checklist for BS in Software Development

Required COMP 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. WEB 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
- 431. WEB 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 courses must be chosen:

Computing:

- 328. NUMERICAL METHODS. (3) Spring, even years.
- 335. FILE STRUCTURES AND ACCESS METHODS. (3) Fall, odd years
- 367. COOPERATIVE 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
- See Liberal Arts Requirements at <http://harding.catalog.acalog.com/>

- 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