

Checklist for BS in Computer Science

Required COMP courses:

- 1500-1510. PROGRAMMING I and II (3,3) Fall, Spring or
- 1700. INTRODUCTION TO SOFTWARE DEVELOPMENT. (5) Fall, Spring
- 2450. DATA STRUCTURES. (3) Fall, Spring
- 2500. WEB DEVELOPMENT I. (3) Fall, Spring
- 2680. COMPUTER ARCHITECTURE AND ASSEMBLER PROGRAMMING. (3) Fall, Spring
- 3010. SOFTWARE ENGINEERING. (3) Fall, Spring
- 3100. OPERATING SYSTEMS CONCEPTS. (3) Fall, Intercession
- 3110. DATA COMMUNICATIONS AND NETWORKING. (3) Spring
- 3360. DATABASE CONCEPTS AND APPLICATIONS. (3) Spring
- 3450. OBJECT-ORIENTED PROGRAMMING. (3) Fall, Spring
- 4390. COMPUTING SEMINAR. (1) Fall, Spring
- 4400. CS SOFTWARE DEVELOPMENT PROJECT. (3) Spring

BS requires three of these elective COMP courses:

- 3150. ETHICAL HACKING. (3) Spring
- 3280. NUMERICAL METHODS. (3) Spring, even years
- 3350. FILE STRUCTURES AND ACCESS METHODS. (3) Fall, odd years
- 3490. APPLIED ALGORITHMS.(3) Fall
- 3670. COOPERATIVE EDUCATION. (3) By arrangement with department chair
- 4250. PARALLEL PROGRAMMING. (3) Spring, odd years
- 4299. MACHINE LEARNING. (3) Spring
- 4300. ARTIFICIAL INTELLIGENCE. (3) Fall, even years
- 4310. WEB DEVELOPMENT II. (3) Spring
- 4450. GRAPHICAL USER INTERFACE PROGRAMMING. (3) Fall
- 4500. INDEPENDENT STUDY. (3) Offered by special arrangement
- 4750. SELECTED TOPICS. (3) Offered with sufficient enrollment. **May be repeated as content varies.**
- EEng 2200. Circuits I. (4) Fall

Required Math courses for BS degree:

- 2350. ANALYTICS AND CALCULUS I. (5) Fall, Spring.
- 3300. ANALYTICS AND CALCULUS II. (5) Fall, Spring.
- 3530. DISCRETE MATH (3) Spring.
- 3730. LINEAR ALGEBRA. (3) Fall.
- 3200. PROBABILITY. (3) Spring.

Liberal Arts courses:

- Math 1330 or 1200 (Covered by BS math courses)
- See Liberal Arts Requirements at <https://catalog.harding.edu/>

- Minimum of 45 upper level credits (3000 and above)
- Minimum of 128 credits total needed for graduation