



Computer Science Major, Bachelor of Arts (59 credit hours)

The Computer Science Bachelor of Arts program allows students to move directly into high-paying industry jobs after graduation. The B.A. in Computer Science is designed to develop each student's problem solving, critical thinking, and communication abilities while also developing the computer science knowledge and skills needed by programmers, software developers and software engineers.

Major Requirements:

Foundational Courses (28 credit hours):

- CPSC 2020, Fundamentals of Computational Thinking and Programming, 4 credit hours¹
- CPSC 2030, Object-Oriented Analysis and Design, 4 credit hours
- CPSC 2100, Database Programming, 4 credit hours
- CPSC 2330, Web Application Development, 4 credit hours
- CPSC 2420, Computer Architecture, 2 credit hours
- CPSC 2430, Programming Languages and Compilers, 2 credit hours
- CPSC 2500, Data Structures and Algorithms, 4 credit hours
- MATH 2200/CPSC 2250, Discrete Mathematical Structures, 4 credit hours

Professional Core (17 credit hours):

- CPSC 2150, Technology and Society, 2 credit hours
- CPSC 3410, Computer Networks, 4 credit hours
- CPSC 4420, Operating Systems, 4 credit hours
- CPSC 4430, Software Engineering, 4 credit hours
- Any 3 credit hours from the following:
 - CPSC 4480, Technical Certification, 1 credit hour
 - CPSC 4800, Software Engineering Internship, 2-4 credit hours

Mathematics Elective (4 credit hours):

- Choose one of the following:
 - MATH 2010, Calculus I, 4 credit hours
 - MATH 2120, Introduction to Statistics with Applications, 3 credit hours <u>and POSC 2420</u>, Applied Statistics Lab, 2 credit hours

Computer Science Elective (10 credit hours):

• Any 10 credit hours from CPSC/ENGR/MATH/PHYS 2000 or above

NOTE: All students must complete 120 total credit hours to graduate from Anderson University.

¹ This course fulfills the Quantitative Ways of Knowing requirement in the Liberal Arts Program.





Computer Science BA Major: 4 Year Suggested Course Sequence

| SEMESTER 1 | 16 | SEMESTER 2 | 16 |
|------------------------------|---------|---------------------|---------|
| CPSC 2020 (Quant. Reasoning) | 4 Hours | CPSC 2030 | 4 Hours |
| Scientific Ways of Knowing | 4 Hours | MATH 2200/CPSC 2250 | 4 Hours |
| ENGL 1110 | 3 Hours | ENGL 1120 | 3 Hours |
| LART 1050 | 1 Hours | COMM 1000 | 3 Hours |
| H & A Ways of Knowing | 4 Hours | Personal Wellness | 2 Hours |

| SEMESTER 3 | 17 | SEMESTER 4 | 15 |
|-----------------------|---------|----------------------------------|---------|
| CPSC 2100/2330* | 4 Hours | CPSC 2150 | 2 Hours |
| CPSC 2500 | 4 Hours | CPSC 2430 | 2 Hours |
| BIBL 2000 | 3 Hours | MATH 2010 or MATH 2120/POSC 2420 | 4 Hours |
| H & A Ways of Knowing | 3 Hours | Major Elective | 4 Hours |
| Additional Class | 3 Hours | Christian Ways of Knowing | 3 Hours |

| SEMESTER 5 | 16 | SEMESTER 6 | 16 |
|------------------|---------|--------------------------------------|---------|
| CPSC 2100/2330* | 4 Hours | Major Elective | 4 Hours |
| CPSC 2420 | 2 Hours | Major Elective | 3 Hours |
| CPSC 3410 | 4 Hours | Social + Behavioral Ways of Knowing | 3 Hours |
| Additional Class | 3 Hours | CDCT | 3 Hours |
| Additional Class | 3 Hours | Global/Intercultural Ways of Knowing | 3 Hours |

| SEMESTER 7 | 13 | SEMESTER 8 | 13 |
|-----------------------|---------|------------------|---------|
| CPSC 4430 | 4 Hours | CPSC 4420 | 4 Hours |
| Major Elective | 3 Hours | CPSC 4480/4800 | 3 Hours |
| H & A Ways of Knowing | 3 Hours | Additional Class | 3 Hours |
| Additional Class | 3 Hours | Additional Class | 3 Hours |

^{*}CPSC 2100 offered in the fall of odd years, CPSC 2330 in the fall of even years





Computer Science BA Major: 3 Year Suggested Course Sequence

| SEMESTER 1 | 18 | SEMESTER 2 | 17 |
|------------------------------|---------|--------------------------------------|---------|
| CPSC 2020 (Quant. Reasoning) | 4 Hours | CPSC 2030 | 4 Hours |
| Scientific Ways of Knowing | 4 Hours | MATH 2200/CPSC 2250 | 4 Hours |
| ENGL 1110 | 3 Hours | ENGL 1120 | 3 Hours |
| LART 1050 | 1 Hours | COMM 1000 | 3 Hours |
| H & A Ways of Knowing | 4 Hours | Global/Intercultural Ways of Knowing | 3 Hours |
| Personal Wellness | 2 Hours | | |

| SUMMER 1 | 9 | |
|--------------------|---------|--|
| Additional Classes | 9 Hours | |

| SEMESTER 3 | 17 | SEMESTER 4 | 18 |
|-----------------------|---------|----------------------------------|---------|
| CPSC 2100/2330* | 4 Hours | CPSC 2150 | 2 Hours |
| CPSC 2500 | 4 Hours | CPSC 2430 | 2 Hours |
| BIBL 2000 | 3 Hours | MATH 2010 or MATH 2120/POSC 2420 | 4 Hours |
| H & A Ways of Knowing | 3 Hours | CPSC 4480/4800 | 3 Hours |
| H & A Ways of Knowing | 3 Hours | Major Elective | 4 Hours |
| | | Additional Class | 3 Hours |

| SUMMER 1 | 9 |
|--------------------|---------|
| Additional Classes | 9 Hours |

| SEMESTER 5 | 17 | SEMESTER 6 | 16 |
|---------------------------|---------|-------------------------------------|---------|
| CPSC 2100/2330* | 4 Hours | CPSC 4420 | 4 Hours |
| CPSC 2420 | 2 Hours | Major Elective | 3 Hours |
| CPSC 3410 | 4 Hours | Major Elective | 3 Hours |
| CPSC 4430 | 4 Hours | Social + Behavioral Ways of Knowing | 3 Hours |
| Christian Ways of Knowing | 3 Hours | CDCT | 3 Hours |

^{*}CPSC 2100 offered in the fall of odd years, CPSC 2330 in the fall of even years