

**Computer Science  
Bachelor of Arts  
2025-2026**

**General Areas of Service:** Computer Science majors are prepared to work in a wide range of areas, from the in-demand field of software development to cutting edge areas like robotics, computer vision, intelligent systems, bioinformatics, and many more. Computer scientists work in three primary areas: designing and implementing software, devising new ways to use computers, and developing effective ways to solve computer problems. Computer science offers a comprehensive foundation that permits graduates to adapt to new technologies and new ideas in many different fields. Electives in the Walla Walla University Computer Science curriculum are organized into strands focusing on particular career paths. These include:

- Applied Computer Science
- Web and Information Management
- Computational Science and Intelligent Systems
- Programming Methods and Tools
- Theoretical Computer Science
- Computer Architecture and Organization

**Professional Training:** A bachelor's degree is required for most jobs, and a master's degree may also be desirable. In addition, prior work experience (such as that gained through internships) is important for getting a job in this field.

**Job Outlook:** The Bureau of Labor Statistics (BLS) states that the occupations of computer and information technology are all projected to grow 15 percent from 2021-2031, much faster than the average for all occupations. About 682,800 openings for computer and information research scientists are projected each year, on average, over the decade. "These occupations are expected to add about 418,500 new jobs. Demand for these workers will stem from greater emphasis on cloud computing, the collection and storage of big data, and information security." (See [www.bls.gov](http://www.bls.gov))

**Earnings:** According to the most recent Bureau of Labor Statistics (BLS) salary survey from May 2021, the median annual salaries in several computer science related careers were: \$131,490 for computer and information research scientists, \$120,520 for computer network architects; \$19,020 for software developers; \$78,300 for web developers; and \$101,000 for database administrators. (See [www.bls.gov](http://www.bls.gov))

**Note:** Before graduation, all students must take the MFT exam in Computer Science.

**COMPUTER SCIENCE  
DEPARTMENT**

Kretschmar Hall  
(509) 527-2751

**Websites**

[Walla Walla University](#)  
[University Bulletin](#)

[Computer Science Department](#)

**Faculty**

Chair  
[Benjamin Jackson](#)

Advisors  
[Preston Carman](#)  
[James Foster](#)

**Professional Organizations**

[Association for Computing Machinery](#)

[IEEE Computer Society](#)

**Additional Sources**

[U.S. Bureau of Labor Statistics:  
Computer & Information Technology  
Occupations](#)

## Suggested Degree Path

TOTAL CREDITS REQUIRED: 192 cr. GENERAL STUDIES REQUIREMENTS: 72-81 cr. [See the Undergraduate Bulletin for Details](#)

The chart below details one suggested path a student may take to complete a bachelor's degree in Computer Science.

All B.A. degrees require a minor

Cognates are listed in *italics* and courses marked UD must be at the 300 or 400 level.

### Freshman Year

| Fall Courses                                        | Hours     |
|-----------------------------------------------------|-----------|
| Fund. of Programming I ( <a href="#">CPTR 141</a> ) | 4         |
| *Precalculus I ( <a href="#">MATH 121</a> )         | 4         |
| General Studies: Foundations of Faith               | 4         |
| General Studies Social Science                      | 4         |
| <b>Total</b>                                        | <b>16</b> |

| Winter Courses                                           | Hours     |
|----------------------------------------------------------|-----------|
| Fund. of Programming II ( <a href="#">CPTR 142</a> )     | 4         |
| Intro to Analytical Writing ( <a href="#">ENGL 121</a> ) | 3         |
| *Precalculus II ( <a href="#">MATH 122</a> )             | 4         |
| General Studies: Oral Communication                      | 4         |
| General Studies P.E. Activity                            | 1         |
| <b>Total</b>                                             | <b>16</b> |

| Spring Courses                                        | Hours     |
|-------------------------------------------------------|-----------|
| Art & Practice of CS ( <a href="#">CPTR 108</a> )     | 3         |
| Intro to Research Writing( <a href="#">ENGL 122</a> ) | 3         |
| <i>Calculus</i> ( <a href="#">MATH 171</a> )          | 4         |
| General Studies: Engaging Faith                       | 2         |
| General Studies: Engaging Science & Data              | 4         |
| <b>Total</b>                                          | <b>16</b> |

### Sophomore Year

| Fall Courses                                                | Hours     |
|-------------------------------------------------------------|-----------|
| Comp. Org. & Assembly Language ( <a href="#">CPTR 280</a> ) | 3         |
| Research Writing ( <a href="#">ENGL 223</a> )               | 3         |
| General Studies: Engaging Faith                             | 2         |
| Foreign Language                                            | 4         |
| Minor Requirement                                           | 4         |
| <b>Total</b>                                                | <b>16</b> |

| Winter Courses                                    | Hours     |
|---------------------------------------------------|-----------|
| Software Development ( <a href="#">CPTR 245</a> ) | 4         |
| <i>Data Analysis</i> ( <a href="#">MATH 215</a> ) | 4         |
| Minor Requirement                                 | 4         |
| Foreign Language                                  | 4         |
| <b>Total</b>                                      | <b>16</b> |

| Spring Courses                                            | Hours     |
|-----------------------------------------------------------|-----------|
| Data Structures & Algorithms ( <a href="#">CPTR 242</a> ) | 4         |
| Minor Requirement                                         | 4         |
| General Studies: Humanities (Knowing)                     | 4         |
| Foreign Language                                          | 4         |
| <b>Total</b>                                              | <b>16</b> |

### Junior Year

| Fall Courses                                                  | Hours     |
|---------------------------------------------------------------|-----------|
| Compilers & Languages ( <a href="#">CPTR 354</a> ) UD         | 4         |
| Internship & Career Readiness ( <a href="#">CPTR 396</a> ) UD | 1         |
| General Studies History (Knowing)                             | 4         |
| Minor Requirement                                             | 3         |
| General Studies Natural Science (Lab)                         | 4         |
| <b>Total</b>                                                  | <b>16</b> |

| Winter Courses                                               | Hours     |
|--------------------------------------------------------------|-----------|
| Ethical Issues for Computing ( <a href="#">CPTR 308</a> ) UD | 4         |
| <i>Discrete Mathematics</i> ( <a href="#">MATH 250</a> )     | 4         |
| Minor Requirement                                            | 4         |
| General Studies: Exploring Scripture (UD)                    | 4         |
| <b>Total</b>                                                 | <b>16</b> |

| Spring Courses                                    | Hours     |
|---------------------------------------------------|-----------|
| Operating Systems ( <a href="#">CPTR 352</a> ) UD | 4         |
| General Studies: Engaging Arts (UD)               | 4         |
| Minor Requirement                                 | 4         |
| Other Electives (UD)                              | 4         |
| <b>Total</b>                                      | <b>16</b> |

### Senior Year

| Fall Courses                                         | Hours     |
|------------------------------------------------------|-----------|
| Software Engineering ( <a href="#">CPTR 450</a> ) UD | 3         |
| Senior Project I ( <a href="#">CPTR 496</a> ) UD     | 1         |
| Minor Requirement (UD)                               | 4         |
| Other Electives (UD)                                 | 4         |
| Other Electives (UD)                                 | 4         |
| <b>Total</b>                                         | <b>16</b> |

| Winter Courses                                                  | Hours     |
|-----------------------------------------------------------------|-----------|
| Design & Analysis of Algorithms ( <a href="#">CPTR 454</a> ) UD | 4         |
| Senior Project II ( <a href="#">CPTR 497</a> ) UD               | 2         |
| General Studies: History (Engaging)                             | 4         |
| General Studies: Engaging Faith (UD)                            | 3         |
| Other Electives (UD)                                            | 3         |
| <b>Total</b>                                                    | <b>16</b> |

| Spring Courses                                     | Hours     |
|----------------------------------------------------|-----------|
| Computer Science Elective                          | 2         |
| Senior Project III ( <a href="#">CPTR 498</a> ) UD | 4         |
| General Studies: SDA Life & Thought (UD)           | 3         |
| General Studies: PE Activity                       | 1         |
| Other Electives                                    | 4         |
| Other Electives (UD)                               | 2         |
| <b>Total</b>                                       | <b>16</b> |

+ Offered even years only

- Offered odd years only

\*Does not count toward Computer Science major but is a pre-requisite for other required courses.

**Office of Academic Advisement**

Canaday Technology Center, Room 311 • (800) 558-2132 • (509) 527-2132