

Computer Science Major, Software Development Emphasis Plan

The following suggested four-year plan is for students working toward a Bachelor of Science or Bachelor of Arts degree in Computer Science with a Software Development Emphasis. Students should consult with their advisor to develop a plan of study tailored to their individual needs and interests.

Freshman Year (30-31 credits)

Fall Semester (16 credits)

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| CS 1400 Introduction to Computer Science—CS 1..... | 3 |
| CS 1405 Introduction to Computer Science—CS 1 Lab..... | 1 |
| ECN 1500 (BAI) Introduction to Economic Institutions, History, and Principles | 3 |
| MATH 1210 (QL) Calculus I | 4 |
| USU 1010 University Connections | 2 |
| One University Studies breadth course | 3 |

Spring Semester (14-15 credits)

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| CS 1410 (QI) Introduction to Computer Science—CS 2 | 3 |
| ENGL 1010 (CL1) Introduction to Writing: Academic Prose | 3 |
| MATH 1220 (QL) Calculus II | 4 |
| Science Sequence I course..... | 4-5 |

Sophomore Year (30-31 credits)

Fall Semester (16-17 credits)

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| CS 2420 (QI) Algorithms and Data Structures—CS 3..... | 3 |
| CS 2810 Computer Systems Organization and Architecture I..... | 3 |
| Science Sequence II course..... | 4-5 |
| ENGL 2010 (CL2) Intermediate Writing: Research Writing in a Persuasive Mode | 3 |
| MATH 3310 Discrete Mathematics..... | 3 |

Spring Semester (14 credits)

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|---|---|
| CS 2450 (CI) Introduction to Software Engineering I | 3 |
| CS 3000 Undergraduate Seminar | 1 |
| CS 3410 (QI)¹ Computational Science: JAVA/Internet (F,Sp) (3 cr) or | |
| CS 3420 (QI)¹ Computational Science: C# and .NET (F,Sp,Su) (3 cr) or | |
| CS 3430 (QI)¹ Computational Science: Python and Perl Programming (Sp,Su) (3 cr) | 3 |
| CS 3810 Computer Systems Organization and Architecture II..... | 3 |
| STAT 2300 (QL) Business Statistics | 4 |

Junior Year (30 credits)

Fall Semester (15 credits)

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|---|---|
| CS 3410 (QI)¹ Computational Science: JAVA/Internet (F,Sp) (3 cr) or | |
| CS 3420 (QI)¹ Computational Science: C# and .NET (F,Sp,Su) (3 cr) or | |
| CS 3430 (QI)¹ Computational Science: Python and Perl Programming (Sp,Su) (3 cr) | 3 |
| CS 3450 Introduction to Software Engineering II | 3 |
| CS 4700 Programming Languages | 3 |
| MGT 3080 (QI) Operations Research | 3 |
| One University Studies breadth course | 3 |

Spring Semester (15 credits)

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| CS 3100 Operating Systems and Concurrency..... | 3 |
| CS 5050 Advanced Algorithms..... | 3 |
| SPCH 1020 (BHU/CI) Public Speaking (3 cr) or | |
| ENGL 3080 (CI) Introduction to Technical Communication (3 cr) | 3 |
| MGT 3110 (DSS) Managing Organizations and People..... | 3 |
| One University Studies breadth course..... | 3 |

Senior Year (31-32 credits)

Fall Semester (15-16 credits)

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| CS 5070 Computer Science Capstone I..... | 1 |
| CS 5700 Object-Oriented Software Development..... | 3 |
| CS 5800 Introduction to Database Systems..... | 3 |
| One University Studies breadth course | 3 |
| One University Studies DHA course..... | 3 |
| Advisor-approved elective course | 2-3 |

Spring Semester (16 credits)

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| CS 5071 Computer Science Capstone II..... | 3 |
| CS 3000-level elective course | 3 |
| CS 5000-level elective course | 4 |
| Advisor-approved elective courses..... | 6 |

¹Students in the Software Development Emphasis must take a total of two courses selected from CS 3410, 3420, and 3430.