# Software Development B.S. Degree — Suggested 4-year Plans

Track A: Students who place into Calculus I ***and have programming experience***

| | FALL semester | | SPRING semester | |
|---|---|---|---|---|
| **Freshman year (33 credits)** | CS 1420: Accel Object-Orient Programming | 3 | CS 2420: Into to Algs & Data Structures | 4 |
| | MATH 1210: Calculus I† | 4 | CS 1810: Introduction to Computing Systems | 3 |
| | WRTG 2010: Intermediate Writing | 4 | DS 2500: Data Wrangling | 3 |
| | Gen Ed† | 3 | American Institutions | 3 |
| | Free Elective, if needed | 3 | Free Elective, if needed | 3 |
| **Sophomore year (31 credits)** | CS 3500: Software Practice I | 4 | CS 3505: Software Practice II | 3 |
| | CS 3540: Design Human Centered Systems | 3 | CS 3090: Ethics in Computing | 3 |
| | Math/Science Elective† | 3 | SD Elective | 3 |
| | Des/Mgt/Ent Elective | 3 | Gen Ed (IR)† | 3 |
| | Free Elective, if needed | 3 | Free Elective, if needed | 3 |
| **Junior year (30 credits)** | CS 3550: Web Software I | 3 | CS 4550: Web Software II | 3 |
| | CS 4530: Mobile App Programming | 3 | CS 4440: Computer Security | 3 |
| | SD Elective | 3 | CS 5530: Database Systems (QI) | 3 |
| | Gen Ed (DV)† | 3 | WRTG 3014 or 3015† | 3 |
| | Free Elective, if needed | 3 | Free Elective, if needed | 3 |
| **Senior year (28 credits)** | CS 4000: Senior Capstone Project | 3 | CS 4500: Senior Capstone Project | 3 |
| | SD Elective | 3 | CS 4011: Professional Development | 1 |
| | Des/Mgt/Ent Elective | 3 | SD Elective | 3 |
| | Math/Science Elective† | 3 | Gen Ed† | 3 |
| ***122 credits total*** | Free Elective, if needed | 3 | Gen Ed† | 3 |

Track B: Students who place into CS 1400 and College Algebra.

| | FALL semester | | SPRING semester | |
|---|---|---|---|---|
| **Freshman year (33 credits)** | CS 1400: Intro to Computer Programming | 4 | CS 1410: Intro to Object-Oriented Prog | 4 |
| | MATH 1050: College Algebra | 4 | CS 1810: Introduction to Computing Systems | 3 |
| | Gen Ed† | 3 | MATH 1060: Trigonometry | 3 |
| | Gen Ed† | 3 | Gen Ed (IR)† | 3 |
| | WRTG 2010: Intermediate Writing † | 3 | American Institutions | 3 |
| **Sophomore year (33 credits)** | CS 2420: Intro to Algs & Data Structures | 4 | CS 3500: Software Practice I | 4 |
| | MATH 1210: Calculus I† | 4 | CS 3090: Ethics in Computing | 3 |
| | DS 2500: Data Wrangling | 3 | CS 3540: Design Human Centered Systems | 3 |
| | Gen Ed† | 3 | Math/Science Elective† | 3 |
| | Free Elective, if needed | 3 | Free Elective, if needed | 3 |
| **Junior year (30 credits)** | CS 3505: Software Practice II | 3 | CS 4440: Computer Security | 3 |
| | CS 3550: Web Software I | 3 | CS 4550: Web Software II | 3 |
| | SD Elective | 3 | CS 5530: Database Systems (QI) | 3 |
| | Gen Ed (DV)† | 3 | WRTG 3014 or 3015† | 3 |
| | Des/Mgt/Ent Elective | 3 | Free Elective, if needed | 3 |
| **Senior year (25 credits)** | CS 4000: Senior Capstone Project | 3 | CS 4500: Senior Capstone Project‡ | 3 |
| | CS 4530: Mobile App Programming | 3 | SD Elective | 3 |
| | SD Elective | 3 | SD Elective | 3 |
| | Math/Science Elective† | 3 | CS 4011: Professional Development | 1 |
| ***121 credits total*** | | | Gen Ed† | 3 |

† Honors options available, see https://honors.utah.edu/ for details.
‡ Students pursuing the Honors degree must take CS 4998 concurrently with CS 4500 to satisfy the Honors Thesis Work.
Students need a minimum of 122 credit hours to graduate.