## B.S. in Software Engineering 2019-2020: Option 1 CWILT (Modular)

| FIRST YEAR |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Credits | Interim | Credits | Spring | Credits |
| COS 100Introduction to Programming | 3 | GES 160 Inquiry Seminar | 3 | COS 105 Computer Science 1 | 4 |
| MAT 124M*Calculus 1 | 4 |  |  | GES 125 Introduction to the Creative Arts | 4 |
| GES 140Introduction to Wellbeing | 3 |  |  | Second Language (S) Course | 4 |
| GES 130Christianity Western Culture | 4 |  |  | BIB 101Introduction to the Bible | 3 |
|  | 14 |  | 3 |  | 15 |
| SECOND YEAR |  |  |  |  |  |
| Fall | Credits | Interim | Credits | Spring | Credits |
| MAT 241 Discrete Mathematics | 3 | ENR 160Introduction to Engineering | 3 | COS 214 Computer Architecture | 4 |
| Contemporary Western Life and Thought (L) | 3 |  |  | COS 216 Data Structures and Algorithms | 3 |
| COS 212Computer Science 2 | 4 |  |  | Leisure and Lifetime Sport (Q) course | 1 |
| Laboratory Science (D) course | 4 |  |  | MAT 211 Linear Algebra | 3 |
|  |  |  |  | THE 201 Christian Theology | 3 |
|  |  |  |  | Artistic Activity (A) course | 0-3 |
|  | 14 |  | 3 |  | 14-17 |
| THIRD YEAR |  |  |  |  |  |
| Fall | Credits | Interim | Credits | Spring | Credits |
| World Cultures (U) course | 3 | COS 450 (interim, even \# years) Humans and Computers | 3 | BUS 334 Principles of Project Management | 3 |
| COS 3010perating Systems | 4 |  |  | Comparative Systems (G) course | 3 |
| MAT 207MStatistical Analysis | 3 |  |  | Elective | 3 |
| COS 313 Database Systems | 3 |  |  | Cross-cultural Experience (Z) | 0-3 |
| $\cos 477$ (Fall, odd \# years) Software Engineering | 3 |  |  | COS 371 Organization of Programming Languages | 3 |
|  | 16 |  | 3 |  | 12-15 |
| FOURTH YEAR |  |  |  |  |  |
| Fall | Credits | Interim | Credits | Spring | Credits |
| Elective | 3 | Interim off |  | COS 386 Data Communications and Computer Networks | 3 |
| Interpreting Biblical Themes (J) course | 3 |  |  | ENR 490Engineering Design Project | 3 |
| COS 318 Web Programming | 3 |  |  | Contemporary Christian Issues (P) course | 3 |
| ENR 465Engineering Design Seminar | 1 |  |  | Elective | 3 |
| Science, Technology, and Society (K) course | 3 |  |  | COS 420 Software Process |  |
|  | 13 |  | 0 |  | 15 |

* Students must complete through the second semester of a first year language course or equivalent (Check the catalog for details of this option.)

Most financial aid packages stipulate 12 credits/semester; Minnesota state grants are reduced when credit loads fall below 15 credits/semester. (Interim credits may be split between fall and spring for state grant purposes only.)

## B.S. in Software Engineering 2019-2020: Option 2 - Humanities (Integrated)

| FIRST YEAR |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Credits | Interim | Credits | Spring | Credits |
| COS 100Introduction to Programming | 3 | GES 147Humanities II: Renaissance and Reformation | 4 | COS 105 Computer Science 1 | 4 |
| MAT $124 \mathrm{M} *$ Calculus 1 | 4 |  |  | Second Language (S) course | 4 |
| GES 140Introduction to Wellbeing | 3 |  |  | GES 244Humanities III: European Enlightenment and American Culture to 1877 | 4 |
| GES 145Humanities I: Greco-Roman through Middle Ages | 4 |  |  | BIB 101Introduction to the Bible | 3 |
|  | 14 |  | 4 |  | 15 |
| SECOND YEAR |  |  |  |  |  |
| Fall | Credits | Interim | Credits | Spring | Credits |
| COS 212 Computer Science 2 | 4 | ENR 160Introduction to Engineering | 3 | MAT 211 Linear Algebra | 3 |
| MAT 241 Discrete Mathematics | 3 |  |  | COS 214 Computer Architecture | 4 |
| Laboratory Science (D) course | 4 |  |  | COS 216 Data Structures and Algorithms | 3 |
| GES 246Humanities IV: Modern and Contemporary Western Culture | 4 |  |  | World Cultures (U) course | 3 |
| $\cos 313$ (Fall, even \# years) Database Systems | 3 |  |  | Artistic Activity (A) course | 0-3 |
|  |  |  |  | Leisure and Lifetime Sport (Q) course | 1 |
|  | 18 |  | 3 |  | 14-17 |
| THIRD YEAR |  |  |  |  |  |
| Fall | Credits | Interim | Credits | Spring | Credits |
| COM 2480rganizational Communication | 3 | COS 450Humans and Computers | 3 | Electives | 6 |
| COS 301Operating Systems | 4 |  |  | Cross-cultural Experiences (Z) course | 0-3 |
| MAT 207MStatistical Analysis | 3 |  |  | COS 371 Organization of Programming Languages | 3 |
| COS 477 (Fall, odd \# years) Software Engineering | 3 |  |  | Interpreting Biblical Themes (J) course | 3 |
|  |  |  |  | BUS 334 Principles of Project Management | 3 |
|  | 13 |  | 3 |  | 12-15 |
| FOURTH YEAR |  |  |  |  |  |
| Fall | Credits | Interim | Credits | Spring | Credits |
| Comparative Systems (G) course | 3 | Interim Off |  | COS 386 Data Communications and Computer Networks | 3 |
| COS 318 Web Programming | 3 |  |  | Contemporary Christian Issues (P) course | 3 |
| Science, Technology, and Society (K) course | 3 |  |  | ENR 490Engineering Design Project | 3 |
| ENR 465Engineering Design Seminar | 1 |  |  | COS 420 Software Process | 3 |
|  |  |  |  | Elective | 3 |
|  | 13 |  | 0 |  | 15 |
| Total Credits 124-130 |  |  |  |  |  |

* Students must complete through the second semester of a first year language course or equivalent (Check the catalog for details of this option.)

Most financial aid packages stipulate 12 credits/semester; Minnesota state grants are reduced when credit load falls below 15 credits/semester. (Interim credits may be split between fall and spring for state grant purposes only.)

