

B.S. in Computer Engineering 2020-2021: Option 1 - CWILT

| FIRST YEAR | | | | | |
|---|---------|---|---------|---|---------|
| Fall | Credits | Interim | Credits | Spring | Credits |
| GES 140 Introduction to Wellbeing | 3 | ENR 160 Introduction to Engineering | 3 | COS 205 Scientific Computing | 3 |
| GES 160 Inquiry Seminar | 3 | | | GES 130 Christianity Western Culture | 4 |
| MAT 124M Calculus 1 | 4 | | | MAT 125 Calculus 2 | 4 |
| PHY 292 & PHY 292D General Physics I and General Physics I Lab | 4 | | | PHY 296 & PHY 297 General Physics II and General Physics II Lab | 4 |
| | 14 | | 3 | | 15 |
| SECOND YEAR | | | | | |
| Fall | Credits | Interim | Credits | Spring | Credits |
| COS 212 Data Structures | 4 | GES 125 Introduction to the Creative Arts | 4 | COS 214 Computer Architecture | 4 |
| ENR 316 & ENR 317 Analog Circuitry and Design and Analog Circuitry Design Lab | 4 | | | COS 216 Algorithms and Advanced Data Structures | 3 |
| MAT 224 Differential Equations with Linear Algebra | 4 | | | MAT 223 Multivariable Calculus | 3 |
| PHY 260 Careers in Engineering and Physics Seminar | 1 | | | Contemporary Western Life and Thought (L) course | 3 |
| PHY 302 & PHY 303 Electronics and Electronics Lab | 4 | | | Second Language (S) course *1 | 4 |
| | 17 | | 4 | | 17 |
| THIRD YEAR | | | | | |
| Fall | Credits | Interim | Credits | Spring | Credits |
| BIB 101 Introduction to the Bible | 3 | Cross-cultural experience (Z) course | 0-3 | COS 386 Data Communications and Computer Networks | 3 |
| ENR 336 Signals and Systems | 4 | | | ENR 306 & ENR 307 Digital Logic and Design and Digital Logic and Design Lab | 4 |
| ENR 436 & ENR 437 Microprocessors and Microprocessors Lab | 4 | | | PHY 352 & PHY 353 Computer Methods in Physics and Engineering and Computer Methods in Physics and Engineering Lab | 4 |
| MAT 241 Discrete Mathematics | 3 | | | THE 201 Christian Theology | 3 |
| | 14 | | 0-3 | | 14 |
| FOURTH YEAR | | | | | |
| Fall | Credits | Interim | Credits | Spring | Credits |
| COS 301 Operating Systems | 4 | COS 450 Humans and Computers | 3 | ENR 490 Engineering Design Project | 3 |
| ENR 465 Engineering Design Seminar | 1 | | | Artistic Experience (A) course (0-3 credits) | 0-3 |
| MAT 330 Probability and Statistics | 3 | | | Comparative Systems (G) course | 3 |
| Interpreting Biblical Themes (J) course | 3 | | | Science, Technology, and Society (K) course | 3 |
| Leisure and Lifetime Sports (Q) course | 1 | | | Contemporary Christian Issues (P) course | 3 |
| | 12 | | 3 | | 12-15 |
| Total Credits 125-131 | | | | | |

*1. 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.)

B.S. in Computer Engineering 2020-2021: Option 2 - Humanities

| FIRST YEAR | | | | | |
|--|---------|--|---------|---|---------|
| Fall | Credits | Interim | Credits | Spring | Credits |
| GES 140 Introduction to Wellbeing | 3 | GES 147 Humanities II: Renaissance and Reformation | 4 | GES 244 Humanities III: European Enlightenment and American | 4 |
| GES 145 Humanities I: Greco-Roman through Middle Ages | 4 | | | COS 205 Scientific Computing | 3 |
| MAT 124M Calculus 1 | 4 | | | MAT 125 Calculus 2 | 4 |
| PHY 292 | 4 | | | PHY 296 | 4 |
| & PHY 292D | | | | & PHY 297 | |
| General Physics I and General Physics I Lab | | | | General Physics II and General Physics II Lab | |
| | 15 | | 4 | | 15 |
| SECOND YEAR | | | | | |
| Fall | Credits | Interim | Credits | Spring | Credits |
| COS 212 Data Structures | 4 | ENR 160 Introduction to Engineering | 3 | COS 214 Computer Architecture | 4 |
| ENR 316 | 4 | | | COS 216 Algorithms and Advanced Data Structures | 3 |
| & ENR 317 | | | | | |
| Analog Circuitry and Design and Analog Circuitry Design Lab | | | | | |
| MAT 224 Differential Equations with Linear Algebra | 4 | | | MAT 223 Multivariable Calculus | 3 |
| PHY 260 Careers in Engineering and Physics Seminar | 1 | | | Second Language (S) course *1 | 4 |
| GES 246 Humanities IV: Modern and Contemporary Western Culture | 4 | | | Leisure and Lifetime Sports (Q) course | 1 |
| | 17 | | 3 | | 15 |
| THIRD YEAR | | | | | |
| Fall | Credits | Interim | Credits | Spring | Credits |
| ENR 336 Signals and Systems | 4 | COS 450 Humans and Computers | 3 | COS 386 Data Communications and Computer Networks | 3 |
| ENR 436 | 4 | | | ENR 306 | 4 |
| & ENR 437 | | | | & ENR 307 | |
| Microprocessors and Microprocessors Lab | | | | Digital Logic and Design and Digital Logic and Design Lab | |
| MAT 241 Discrete Mathematics | 3 | | | PHY 352 | 4 |
| | | | | & PHY 353 | |
| | | | | Computer Methods in Physics and Engineering and Computer Methods in Physics and Engineering Lab | |
| PHY 302 | 4 | | | THE 201 Christian Theology | 3 |
| & PHY 303 | | | | | |
| Electronics and Electronics Lab | | | | | |
| BIB 101 Introduction to the Bible | 3 | | | | |
| | 18 | | 3 | | 14 |
| FOURTH YEAR | | | | | |
| Fall | Credits | Interim | Credits | Spring | Credits |
| COS 301 Operating Systems | 4 | Cross-cultural experience (Z) course | 0-3 | ENR 490 Engineering Design Project | 3 |
| ENR 465 Engineering Design Seminar | 1 | | | Artistic Experience (A) course (0-3 credits) | 0-3 |
| MAT 330 Probability and Statistics | 3 | | | Comparative Systems (G) course | 3 |
| Interpreting Biblical Themes (J) course | 3 | | | Science, Technology, and Society (K) course | 3 |
| Leisure and Lifetime Sport (Q) course | 1 | | | Contemporary Christian Issues (P) course | 3 |
| | 12 | | 0-3 | | 12-15 |
| Total Credits 128-134 | | | | | |

*1. 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.)