

B.S. in Mathematics and Data Science 2020-2021: Option 1- CWILT

| FIRST YEAR | | | | | |
|---|---------|--|---------|---|---------|
| Fall | Credits | Interim | Credits | Spring | Credits |
| COS 100 Introduction to Programming | 3 | GES 160 Inquiry Seminar | 3 | COS 105 Object-oriented Design and Programming | 4 |
| MAT 124M Calculus 1 *1 | 4 | | | BIB 101 Introduction to the Bible | 3 |
| GES 140 Introduction to Wellbeing | 3 | | | GES 130 Christianity Western Culture | 4 |
| GES 125 Introduction to the Creative Arts | 4 | | | MAT 125 Calculus 2 | 4 |
| | 14 | | 3 | | 15 |
| SECOND YEAR | | | | | |
| Fall | Credits | Interim | Credits | Spring | Credits |
| MAT 223 Multivariable Calculus | 3 | Contemporary Western Life and Thought (L) course | 3 | MAT 211 Linear Algebra | 3 |
| MAT 241 Discrete Mathematics | 3 | | | MAT 222 Differential Equations | 3 |
| COS 212 Data Structures | 4 | | | COS 216 Algorithms and Advanced Data Structures | 3 |
| Laboratory Science (D) course | 4 | | | THE 201 Christian Theology | 3 |
| | | | | Second Language (S) course *2 | 4 |
| | 14 | | 3 | | 16 |
| THIRD YEAR | | | | | |
| Fall | Credits | Interim | Credits | Spring | Credits |
| COS 313 Database Systems | 3 | Interim Off | | MAT 310 Abstract Algebra | 4 |
| MAT 330 Probability and Statistics | 3 | | | MAT 344 Numerical Methods | 3 |
| MAT 422 Real Analysis | 3 | | | Artistic Experience (A) course | 0-3 |
| World Cultures (U) course | 3 | | | Electives | 6 |
| Cross-Cultural Experience (Z) course | 0-3 | | | | |
| | 12-15 | | 0 | | 13-16 |
| FOURTH YEAR | | | | | |
| Fall | Credits | Interim | Credits | Spring | Credits |
| MAT 376 Operations Research | 4 | MAT 499 Senior Seminar | 3 | BUS 317 Business Analytics | 4 |
| Comparative Systems (G) course | 3 | | | COS 334 Data Mining and Machine Learning | 3 |
| Interpreting Biblical Themes (J) course | 3 | | | MAT 331 Applied Statistics | 3 |
| Science, Technology, and Society (K) course | 3 | | | Contemporary Christian Issues (P) course | 3 |
| Elective | 3 | | | Leisure and Lifetime Sport (Q) course | 1 |
| | 16 | | 3 | | 14 |
| Total Credits 123-129 | | | | | |

*1. This program assumes students will use MAT 124M to meet the General Education Mathematics (M) course requirement.

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

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 Mathematics and Data Science 2020-2021: Option 2- Humanities

| FIRST YEAR | | | | | |
|--|---------|--|---------|---|---------|
| Fall | Credits | Interim | Credits | Spring | Credits |
| COS 100 Introduction to Programming | 3 | GES 147 Humanities II: Renaissance and Reformation | 4 | BIB 101 Introduction to the Bible | 3 |
| MAT 124M Calculus 1 *1 | 4 | | | COS 105 Object-oriented Design and Programming | 4 |
| GES 140 Introduction to Wellbeing | 3 | | | MAT 125 Calculus 2 | 4 |
| GES 145 Humanities I: Greco-Roman through Middle Ages | 4 | | | GES 244 Humanities III: European Enlightenment and American Culture to 1877 | 4 |
| | 14 | | 4 | | 15 |
| SECOND YEAR | | | | | |
| Fall | Credits | Interim | Credits | Spring | Credits |
| MAT 223 Multivariable Calculus | 3 | Laboratory Science (D) course | 4 | MAT 211 Linear Algebra | 3 |
| MAT 241 Discrete Mathematics | 3 | | | MAT 222 Differential Equations | 3 |
| COS 212 Data Structures | 4 | | | COS 216 Algorithms and Advanced Data Structures | 3 |
| GES 246 Humanities IV: Modern and Contemporary Western Culture | 4 | | | Second Language (S) course *2 | 4 |
| Elective | 3 | | | | |
| | 17 | | 4 | | 13 |
| THIRD YEAR | | | | | |
| Fall | Credits | Interim | Credits | Spring | Credits |
| COS 313 Database Systems | 3 | Interim Off | | MAT 310 Abstract Algebra | 4 |
| MAT 330 Probability and Statistics | 3 | | | MAT 344 Numerical Methods | 3 |
| MAT 422 Real Analysis | 3 | | | Artistic Experience (A) course | 0-3 |
| World Cultures (U) course | 3 | | | Electives | 6 |
| Cross-Cultural Experience (Z) course | 0-3 | | | | |
| | 12-15 | | 0 | | 13-16 |
| FOURTH YEAR | | | | | |
| Fall | Credits | Interim | Credits | Spring | Credits |
| MAT 376 Operations Research | 4 | MAT 499 Senior Seminar | 3 | BUS 417 Business Analysis and Analytics Seminar | 3 |
| Interpreting Biblical Themes (J) course | 3 | | | COS 334 Data Mining and Machine Learning | 3 |
| Comparative Systems (G) course | 3 | | | MAT 331 Applied Statistics | 3 |
| Science, Technology, and Society (K) course | 3 | | | Contemporary Christian Issues (P) course | 3 |
| Elective | 3 | | | Leisure and Lifetime Sports (Q) course | 1 |
| | 16 | | 3 | | 13 |
| Total Credits 124-130 | | | | | |

*1. This program assumes students will use MAT 124M to meet the General Education Mathematics (M) course requirement.

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

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.)