# B.S. in Applied Physics (Computational Emphasis) 2017-2018: Option 1 - CWILT

| First Year | | | | | |
|---|---|---|---|---|---|
| **Fall** | **Credits** | **Interim** | **Credits** | **Spring** | **Credits** |
| PHY292 & 292D General Physics I and General Physics I Lab *1 | 4 | GES125 Introduction to the Creative Arts | 4 | PHY296 & PHY297 General Physics II and General Physics II Lab | 4 |
| BIB101 Introduction to the Bible | 3 | | | GES130 Christianity Western Culture | 4 |
| GES160 Inquiry Seminar | 3 | | | GES140 Introduction to Wellbeing | 3 |
| MAT124M Calculus 1 | 4 | | | MAT125 Calculus 2 | 4 |
| | **14** | | **4** | | **15** |
| **Second Year** | | | | | |
| **Fall** | **Credits** | **Interim** | **Credits** | **Spring** | **Credits** |
| PHY302 & PHY303 Electronics and Electronics Lab | 4 | COS351 High-Performance Computing | 3 | PHY312 & PHY313 Modern Physics and Modern Physics Lab | 4 |
| COS205 Scientific Computing | 3 | | | PHY352 & PHY353 Computer Methods in Physics and Engineering and Computer Methods in Physics and Engineering Lab | 4 |
| MAT223 Multivariable Calculus | 3 | | | MAT222 Differential Equations | 3 |
| PHY260 Careers in Engineering and Physics Seminar | 1 | | | Second Language (S) course[2] | 4 |
| Contemporary Western Life and Thought (L) course | 3 | | | | |
| | **14** | | **3** | | **15** |
| **Third Year** | | | | | |
| **Fall** | **Credits** | **Interim** | **Credits** | **Spring** | **Credits** |
| CHE208 & 208D Accelerated General Chemistry and Accelerated General Chemistry Lab | 4 | World Cultures (U) course | 3 | PHY340 Mechanics | 4 |
| MAT241 Discrete Mathematics | 3 | | | PHY365 Physics Research Seminar | 1 |
| MAT376 Operations Research | 4 | | | Comparative Systems (G) course | 3 |
| THE201 Christian Theology | 3 | | | Science, Technology, and Society (K) course | 3 |
| | | | | Interpreting Biblical Themes (J) course | 3 |
| | **14** | | **3** | | **14** |
| **Fourth Year** | | | | | |
| **Fall** | **Credits** | **Interim** | **Credits** | **Spring** | **Credits** |
| PHY320 Mathematical Methods in Physics and Engineering | 4 | Interim Off | | PHY490 Research | 3 |
| MAT330 Probability and Statistics | 3 | | | Leisure and Lifetime Sport (Q) course | 1 |
| MAT344 Numerical Methods | 3 | | | Contemporary Christian Issues (P) course | 3 |
| Cross-Cultural Experience (Z) course | 0-3 | | | Artistic Experience (A) course | 0-3 |
| Elective | 4 | | | Electives | 6 |
| | **14-17** | | **0** | | **13-16** |
| **Total Credits: 123-129** | | | | | |

*1. Students may also choose to use this course to meet a General Education requirement.
*2. Students must complete through the second semester of a first year language course or equivalent (Check the catalog for details of this option.)

Because of possible double counting between General Education and the major, the actual credit total can be reduced to 122.

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.)

BETHEL UNIVERSITY

# B.S. in Applied Physics (Computational Emphasis) 2017-2018: Option 2 - Humanities

| First Year | | | | | |
|---|---|---|---|---|---|
| **Fall** | **Credits** | **Interim** | **Credits** | **Spring** | **Credits** |
| PHY292 & 292D General Physics I and General Physics I Lab *1 | 4 | GES147 Humanities II: Renaissance and Reformation | 4 | PHY296 & PHY297 General Physics II and General Physics II Lab | 4 |
| GES145 Humanities I: Greco-Roman through Middle Ages | 4 | | | GES244 Humanities III: European Enlightenment and American Culture to 1877 | 4 |
| GES140 Introduction to Wellbeing | 3 | | | BIB101 Introduction to the Bible | 3 |
| MAT124M Calculus 1 | 4 | | | MAT125 Calculus 2 | 4 |
| | **15** | | **4** | | **15** |
| **Second Year** | | | | | |
| **Fall** | **Credits** | **Interim** | **Credits** | **Spring** | **Credits** |
| PHY302 & PHY303 Electronics and Electronics Lab | 4 | World Cultures (U) course | 3 | PHY312 & PHY313 Modern Physics and Modern Physics Lab | 4 |
| COS205 Scientific Computing | 3 | | | PHY352 & PHY353 Computer Methods in Physics and Engineering and Computer Methods in Physics and Engineering Lab | 4 |
| MAT223 Multivariable Calculus | 3 | | | MAT222 Differential Equations | 3 |
| GES246 Humanities IV: Modern and Contemporary Western Culture | 4 | | | Second Language (S) course[2] | 4 |
| | **14** | | **3** | | **15** |
| **Third Year** | | | | | |
| **Fall** | **Credits** | **Interim** | **Credits** | **Spring** | **Credits** |
| CHE208 & 208D Accelerated General Chemistry and Accelerated General Chemistry Lab | 4 | COS351 High-Performance Computing | 3 | PHY365 Physics Research Seminar | 1 |
| MAT241 Discrete Mathematics | 3 | | | PHY340 Mechanics | 4 |
| MAT376 Operations Research | 4 | | | Comparative Systems (G) course | 3 |
| PHY260 Careers in Engineering and Physics Seminar | 1 | | | Science, Technology, and Society (K) course | 3 |
| THE201 Christian Theology | 3 | | | Interpreting Biblical Themes (J) course | 3 |
| | **15** | | **3** | | **14** |
| **Fourth Year** | | | | | |
| **Fall** | **Credits** | **Interim** | **Credits** | **Spring** | **Credits** |
| PHY320 Mathematical Methods in Physics and Engineering | 4 | Interim Off | | PHY490 Research | 3 |
| MAT330 Probability and Statistics | 3 | | | Leisure and Lifetime Sport (Q) course | 1 |
| MAT344 Numerical Methods | 3 | | | Contemporary Christian Issues (P) course | 3 |
| Cross-Cultural Experience (Z) course | 0-3 | | | Artistic Experience (A) course | 0-3 |
| Electives | 4 | | | Electives | 6 |
| | **14-17** | | **0** | | **13-16** |
| **Total Credits: 125-131** | | | | | |

*1. Students may also choose to use this course to meet a General Education requirement.
*2. Students must complete through the second semester of a first year language course or equivalent (Check the catalog for details of this option.)

Because of possible double counting between General Education and the major, the actual credit total can be reduced to 122.

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.)

BETHEL UNIVERSITY