**Texas Lutheran University Degree Plan**

**Bachelor of Science in Applied Physics – Computational**

**Student Name:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **ID#:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Prospective Graduation Date:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Catalog Year:** 2023-24



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| **General Education** |
| Take the following **Foundation** requirements (18 hrs): |
| Basic Quantitative Literacy |
|  | *MATH130 College Math or higher* |
| Critical Reading |
|  | *FREX134 Exploring the Arts & Sciences* |
| Engaging Faith Traditions |
|  | *THEO133 Intro to Theology* |
| Modern Language |
|  | *Foreign language at 131 level or higher \** |
| Written Communication |
|  | *COMP131 Composition I* |
|  | *COMP132 Composition II* |
| *\* The language requirement can also be met by a study abroad*  *program lasting 4 weeks.* |
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| Take the following **Distribution** requirements (24 hrs): |
| Arts 6 hrs |
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| Humanities 12 hrs (no more than 2 courses/discipline) |
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| Natural Sciences & Math 6 hrs (1 crs w/lab) |
| √ | *PHYS 240 Principles of Physics I* |
| √ | *CHEM 143 General Chemistry I* |
| Social Sciences 6 hrs |
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| Take the following **Competencies**: |
| 3 Critical Thinking Courses (T) |  |  |  |
| 3 Engaged Citizenship Courses (Z) |  |  |  |
| 2 Communication Courses (C) |  |  |  |
| 1 Ethics Course (E) |  |  |  |
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| **Reflective Modules (3)** |
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| **Physic (50 hrs)** |
|  | *PHYS 240 Intro Physics for Scientists & Eng I* |
|  | *PHYS 241 Intro Physics for Scientists & Eng II* |
|  | *PHYS 331 Mechanics or PHYS 337 Dynamics* |
|  | *PHYS 332 Electricity & Magnetism* |
|  | *PHYS 334 Modern Physics* |
|  | *PHYS 313 Modern Physics Lab* |
|  | *PHYS 335 Quantum or PHYS 336 Stat & Thermal* |
|  | *PHYS 348 Applied Optics* |
|  | *PHYS 371 Math Methods for Scientists & Engineers* |
|  | *PHYS 381 Digital Electronics* |
|  | *PHYS 384 Advanced Lab in Physics* |
|  | *PHYS 390 Applied Computational Physics I* |
|  | *PHYS 391 Applied Computational Physics II* |
|  | *PHYS 392 Thermal & Fluids Physics for Engineering* |
|  | *PHYS 437 Physics Research* |
|  | *PHYS 438 Senior Seminar in Physics* |
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| **Computational Specialization (7 hrs)** |
|  | *CSCI 249 Object-Oriented Design & Methodology* |
|  | *CSCI 338 Numerical Methods* |
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| **Supporting coursework (30 hrs)** |
|  | *CHEM 143 General Chemistry I* |
|  | *CHEM 144 General Chemistry II* |
|  | *MATH 241 Calculus I* |
|  | *MATH 242 Calculus II* |
|  | *MATH 334 Differential Equations* |
|  | *MATH 343 Calculus III* |
|  | *CSCI 248 Object Oriented Programming* |
|  | *STAT 374 Statistics* |
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| **Electives or minor to total 124 hrs** |
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**IMPORTANT**: An overall GPA of 2.0 and a major/minor GPA of 2.0 is required for graduation. All degrees require a minimum of 124 hours. It is the responsibility of the student to fulfill all degree requirements.

Student: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Advisor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Dept Chair: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Registrar: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_