

## **Texas Lutheran University Degree Plan**

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

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

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

General Education Take the following Foundation requirements (15 hrs): Basic Quantitative Literacy √ MATH 241 Calculus I 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.

Take the following <b>Distribution</b> requirements (24 hrs):		
Arts 6 hrs		
Humanities 12 hrs (no more than 2 courses/discipline)		
Natural Sciences & Math 6 hrs (1 crs w/lab)		
√ CHEM 143 General Chemistry I		
✓ PHYS 240 Principles of Physics I		
Social Sciences 6 hrs		

Complete each of the following Competencies:			
3 Critical Thinking Courses (T)			
3 Engaged Citizenship Courses (Z)			
2 Communication Courses (C)			
1 Ethics Course (E)			

Reflective Modules (3)				

Physic (43 hrs)		
PHYS 240 Intro Physics for Scientists & Eng I		
PHYS 241 Intro Physics for Scientists & Eng II		
PHYS 331 Mechanics		
PHYS 332 Electricity & Magnetism		
PHYS 334 Modern Physics		
PHYS 313 Modern Physics Lab		
PHYS 335 Quantum Mechanics		
PHYS 336 Statistical Thermodynamics		
PHYS 371 Math Methods for Scientists & Engineers		
PHYS 384 Advanced Lab in Physics		
PHYS 390 Applied Computational Physics I		
PHYS 437 Physics Research		
PHYS 438 Senior Seminar in Physics		
1 additional upper division physics lab course		
PHYS		

Computational Specialization (10 hrs)			
	PHYS 391 Applied Computational Physics II		
	CSCI 249 Object-Oriented Design & Methodology		
	CSCI 338 Numerical Methods		

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		

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