

University of Washington Bothell Curriculum — Physics (BS)

Prerequisites: 25 credits		
STMATH 124: Calculus I	5	
STMATH 125: Calculus II	5	
BPHYS 121: Mechanics	5	
BPHYS 122: Electromagnetism and Oscillatory Motion	5	
BPHYS 123: Waves	5	
Additional Math: 20 Credits		
STMATH 126: Calculus III	5	
STMATH 307: Differential Equations	5	
STMATH 308: Matrix Algebra (Linear Algebra)	5	
STMATH 324: Multivariable Calculus	5	
Physics Core: 48 credits		
BPHYS 221: Classical Mechanics	5	
BPHYS 222: Modern Physics	5	
BPHYS 224: Thermal Physics	5	
BPHYS 231: Introduction to Experimental Physics	3	
BPHYS 321: Electricity and Magnetism I	5	
BPHYS 322: Electricity and Magnetism II	5	
BPHYS 324: Quantum Mechanics I	5	
BPHYS 433: Senior Project	5	
BPHYS 484: Physics, Society, and Industry	5	
BPHYS 494: Seminar	1	
CSS 112: Intro Prog Sci App	4	
Physics Core (MUST SELECT ONE COURSE): 5 credits		
BPHYS 431: Experimental Physics Lab I	5	
BPHYS 432: Experimental Physics Lab II	5	
BPHYS 450: Computational Physics & Theoretical Modeling	5	
Physics Electives: Choose 20 credits (any 4 classes)		
BPHYS 229: Biophysics I (check with physics faculty)	5	
BPHYS 293: Special Topics in Physics	5	
BPHYS 311: Astrophysics I	5	
BPHYS 312: Astrophysics II (next offered WIN23)	5	
BPHYS 314: Introduction to Cosmology	5	
BPHYS 317: Mathematical Physics	5	
BPHYS 323: Electricity and Magnetism III	5	
BPHYS 325: Quantum Mechanics II	5	
BPHYS 328: Statistical Physics	5	
BPHYS 431: Experimental Physics Lab I	5	
BPHYS 432: Experimental Physics Lab II	5	
BPHYS 441: Condensed Matter Physics I	5	
BPHYS 450: Computational Physics & Theoretical Modeling	5	
BPHYS 493: Advanced Topics in Physics	5	
BPHYS 498: Independent Study	5	
BPHYS 499: Research	5	

**General Education Requirements**

Composition/Additional Writing (C/W): 10 credits		
Composition (B WRIT 134 or equivalent)	5	
Additional Writing (W course of your choice)	5	
Additional Writing (fulfilled with BPHYS 484)	5	x
Visual, Literary, and Performing Arts (VLPA): 15 credits		
	5	
	5	
	5	
Individuals & Societies (I&S): 15 credits		
Fulfilled with BPHYS 484	5	x
	5	
	5	
Diversity (DIV): 3 credits		
	3	

Projected Course Offerings 2021-2022

(subject to change)

Autumn	Winter	Spring	Summer
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	—	—
—	✓	✓	—
—	—	✓	✓
Autumn	Winter	Spring	Summer
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
Autumn	Winter	Spring	Summer
—	—	✓	—
✓	—	—	—
—	✓	—	—
✓	—	—	—
✓	—	—	—
—	✓	—	—
✓	—	—	—
—	—	✓	—
✓	—	—	—
✓	—	—	—
✓	✓	✓	—
Autumn	Winter	Spring	Summer
✓	—	—	—
—	✓	—	—
—	✓	—	—
Autumn	Winter	Spring	Summer
Varies			
Varies			
—	✓	—	—
—	—	—	—
—	—	✓	—
—	—	✓	—
—	—	✓	—
—	✓	—	—
—	—	✓	—
✓	—	—	—
—	✓	—	—
—	—	—	—
—	✓	—	—
Varies			
✓	✓	✓	✓
✓	✓	✓	✓

**Notes**

## **Important Tips & Additional Information**

- If you need assistance, please email Academic Advisor Evin Hickey at ehickey1@uw.edu
- **Upper Division Prerequisites** - Take your 300-level math (307, 308, 324) and 200-level physics (221, 222, 224, 231) as soon as possible in order to graduate in a timely manner. Also, it is **strongly recommended** but not strictly required that you take BPHYS 317 before your other 300/400-level physics courses.
- **Requirement Overlap** - A single course cannot fulfill more than one degree-specific requirement, but it can fulfill a degree-specific requirement and any number of General Education requirements. For example, BPHYS 484 will also fulfill both "Additional Writing" and "Individuals and Societies" credit.
- **Using Other Coursework** - Certain courses from engineering or other disciplines can potentially be used to fulfill Physics degree requirements. Exceptions are granted upon review of your petition by the Physics program faculty. In addition, some courses have equivalents at Seattle campus. Please ask your academic advisor for more information.
- **Subject to Change** - All requirements and policies are subject to change without notice. The course list is updated regularly. Please check with your advisor to verify that a course fulfills any given requirement.

## **Credit Policies**

- **Total Credits** - You must have at least 180 college-level credits to earn this degree.
- **Transfer Credits** - The University of Washington Bothell allows 135 credits to transfer. Of those, up to 90 credits may be lower division courses (100-200 level). You may request to have more lower division credits count towards the 180-credit minimum.
- **Cross-Campus Enrollment** - After earning a certain number of credits at UW Bothell (usually 15), students may take up to 15 credits per academic year at other UW campuses.
- **Residency** - To earn a degree from The University of Washington, students must complete at least 45 of their final 60 credits at their home campus (UW Bothell).
- **Minimum GPA** - All classes in the Calculus series (STMATH 124, 125, 125) and Physics series (B PHYS 121, 122, 123) must be completed with a 2.0 or higher. In addition, you must maintain a minimum GPA of 2.0 to earn a degree from UWB.

## **Notes**