### University of Washington Bothell Curriculum — Physics (BS)

#### Prerequisites: 25 credits
- **STMATH 124: Calculus I**
- **STMATH 125: Calculus II**
- **BPHYS 121: Mechanics**
- **BPHYS 122: Electromagnetism and Oscillatory Motion**
- **BPHYS 123: Waves**

#### Additional Math: 20 Credits
- **STMATH 126: Calculus III**
- **STMATH 307: Differential Equations**
- **STMATH 308: Matrix Algebra (Linear Algebra)**
- **STMATH 324: Multivariable Calculus**

#### Physics Core: 54 credits
- **BPHYS 221: Classical Mechanics**
- **BPHYS 222: Modern Physics**
- **BPHYS 224: Thermal Physics**
- **BPHYS 231: Introduction to Experimental Physics**
- **BPHYS 317: Mathematical Physics**
- **BPHYS 321: Electricity and Magnetism I**
- **BPHYS 322: Electricity and Magnetism II**
- **BPHYS 324: Quantum Mechanics I**
- **BPHYS 431: Experimental Physics Lab I**
- **BPHYS 433: Senior Project**
- **BPHYS 484: Physics in Society and Industry**
- **OR- BBIO/BCHEM 225: Scientific Writing**
- **BPHYS 494: Seminar (C/NC)**

#### Physics Electives: Choose 20 credits (any 4 classes)
- **Astrophysics Concentration (20 credits)**
  - **BPHYS 305: The Cosmos**
  - **BPHYS 311: Astrophysics I**
  - **BPHYS 312: Astrophysics II**
  - **BPHYS 314: Introduction to Cosmology**

- **Biophysics Concentration (10 credits)**
  - **BPHYS 229: Biophysics I**
  - **BPHYS 429: Biophysics II**

- **Condensed Matter Concentration (10 credits)**
  - **BPHYS 441: Condensed Matter Physics I**
  - **BPHYS 443: Condensed Matter Physics II**

#### Other Electives
- **BPHYS 323: Electricity and Magnetism III**
- **BPHYS 325: Quantum Mechanics II**
- **BPHYS 328: Statistical Physics**
- **BPHYS 432: Experimental Physics Lab II**
- **BPHYS 450: Computational Physics**
- **BPHYS 498: Independent Study**
- **BPHYS 499: Research**

#### Composition/Additional Writing (C/W): 10 credits
- **Composition**
- **Technical or Research Writing Recommended**
- **Fulfilled with BPHYS 484 or BBIO/BCHEM 225 [Scientific Writing]**

#### Visual, Literary, and Performing Arts (VLPA): 15 credits

#### Individual & Society (I&S): 15 credits
- **Fulfilled if taking BPHYS 484.**

#### Diversity (DIV): 3 credits

#### Additional General Electives: As needed to reach 180

### Notes
- **KEY**
  - ✓: Course is planned to be offered.
  - A: Course is offered in "A" years. (2016-17, 2018-19, etc.)
  - B: Course is offered in "B" years. (2017-18, 2019-20, etc.)
  - ?: Course may be offered, but is not yet planned.
  - -: Course not planned to be offered.
  - *: Course is still being developed.
Important Tips & Additional Information

- If you need assistance, please email Academic Advisor Chris ShaefC@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.

- **Alternating Core** - BPHYS 321/322/323 and 324/325 are only offered every other year. Skipping these classes can delay your graduation significantly.

- **Senior Project** - You must submit a petition to have anything other than B PHYS 433 count towards this requirement. No more than 10 credits of undergraduate research and/or independent study may be used may be used towards your degree. Begin planning for your research early!

- **Physics Electives** - You may select any four electives from this list. The "Concentrations" are for your reference only and will not be reflected on your degree.

- **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 "Individual and Society" credit.

- **Using Other Coursework** - Certain courses from Engineering or other disciplines may on occasion be used to fulfill Physics degree requirements. These exceptions are only granted when approved by the Physics program's petitions committee. In addition, several 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 petition to have more lower division credits transfer.

- **Cross-Campus Enrollment** - After earning a certain number of credits at UW Bothell (usually 15), students may take up to 15 of their 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