## PHYSICS **Bachelor of Science (B.S.)**

Effective Fall 2024

## **Requirements for the Major**

Each candidate is required to complete the University requirements for the B.S. degree (see page 2) and the following courses:

Course Number	Course Title	Credit Hours	When Offered
PS 103	Physics and Engineering Seminar I	1	Fall
PS 261 or PS 281	College Physics I or General Physics I	5	PS 261 - Fall PS 281 - Spring
PS 262 or PS 282	College Physics II or General Physics II	5	PS 262 – Spring PS 282 – Fall
PS 303	Physics and Engineering Seminar II	1	Fall
PS 320	Electromagnetic Theory I	3	Spring – Even years
PS 330	Optics	3	Fall – Even years
PS 334	Thermodynamics	3	Spring – Even years
PS 335	Theoretical Mechanics I	3	Fall – Odd years
PS 350	Modern Physics I	3	Spring – Odd years
PS 360	Experimental Physics	1 or 2	Fall/Spring
PS 365	Introduction to Theoretical Physics	3	Spring – Odd years
PS 366	Introduction to Computational Physics	3	Fall – Even years
<b>Two</b> of the following:			
PS 322	Circuits and Electronics	3	Spring – Odd years
PS 332	Optics Laboratory	1	Fall – Even years
PS 340	Computer Interfacing and Instrumentation	3	Spring – Even years
PS 352	Modern Physics Laboratory	1	Fall – Odd years
Required correlated courses			
MA 151	Calculus and Analytic Geometry I	5	Fall/Spring
MA 152	Calculus and Analytic Geometry II	5	Fall/Spring
MA 253	Calculus and Analytic Geometry III	3	Fall/Spring

## **University Requirements for the Bachelor of Science Degree**

- ▶ 120 total credit hours, 84 of which must be graded.
- ▶ 45 upper division credit hours (300-400 level).
- A 30-credit-hour concentration chosen from the Natural Sciences, Mathematics, and Computer Information Sciences Division in departments other than the major, and with at least 15 credit hours in one department. (CH 151, CM 111, MA 301, and MA 331 are recommended.)
- ▶ 6 credit hours of English composition (EN 101 and EN 200).
- ▶ 3 credit hours of upper-division English composition (EN 308 recommended).
- ▶ 3 credit hours of mathematics (MA 112 or higher, satisfied by MA 151).
- ▶ 3-credit-hour Communication Studies course (CN 101, CN 150, or CN 351).
- ► 3-credit-hour Diversity and Inclusion course.
- ► 3-credit-hour Scientific Literacy course.
- ▶ 3 credit hours of Washburn Experience (WU 101).
- ▶ 16-17 credit hours of General Education electives:
  - ◆ 4- or 5-credit-hour Science Lecture and Lab course (satisfied by PS 261/281)
  - ♦ 6 credit hours in the Arts and Humanities
  - ♦ 6 credit hours in Social Sciences

In each general education group, courses taken must be in at least two subject areas.

Please consult the University Catalog for approved general education courses

Cumulative grade point average of at least 2.0 and a grade of C or better in each course in the major, required correlated courses, required English composition courses, the required mathematics course, and the required Communication Studies course.

> Please direct questions to: Dr. Karen Camarda, Chair Department of Physics and Astronomy, Washburn University • E-Mail: <u>karen.camarda@washburn.edu</u> • Phone: 785-670-2145

> > http://www.washburn.edu/physics

