



Physics (Solid State), Bachelor of Science

This academic degree map is a term-by-term course schedule designed for you to graduate in four years. The sample schedule below serves as a general guideline to building a full-time schedule for each term. Earning a degree requires that you complete (1) the required General Education courses, (2) the course requirements of your major and (3) any requirements PSU has designated for a Bachelor degree. Courses and special notes are specified to keep you on track to graduate in four years. Where open elective is listed, it means that you may take a course of your choosing, perhaps a course in an area outside of your major, but be sure to discuss this with your advisor.

This map is not a substitute for academic advisement – contact your advisor if you have any questions throughout the term and as you begin planning for the next. The University Catalog is also available as a resource with a complete list of requirements for all degrees offered at PSU.

Recommended 4-years to graduation plan

Code	Semester 1 - FRESHMAN YEAR	Credit	NOTES
ENGL 101	English Composition (SGE) ⁰¹⁰	3	C or better
UGS 150	Gorilla Gateway (SGE) ⁰⁷⁰	2	
CHEM 215	General Chemistry I (SGE) ⁰⁴⁰ Suggested	3	
CHEM 216	General Chemistry I Laboratory (SGE) ⁰⁴⁰ Suggested	2	
MATH 150	Calculus I (SGE) ⁰³⁰	5	
TOTAL CREDIT HOURS		15	

	Semester 3 - SOPHOMORE YEAR	Credit
COMM 207	Speech Communication (SGE) ⁰²⁰	3
PHYS 104	Engineering Physics I	4
PHYS 130	Elementary Physics Laboratory I	1
DSIS 230	Introduction to Programming (or PHYS 302)	3
MATH 253	Calculus III	3
MATH 212	Matrix Algebra	2
TOTAL CREDIT HOURS		16

	Semester 5 - JUNIOR YEAR	Credit
300+	Upper Division Elective by Advisement	2
Bucket 070	Institutionally Designated (SGE) ⁰⁷⁰	3
PHYS 516	Modern Physics I	3
300+	Minor Course	3
100+	Minor Course or Open Elective	2
TOTAL CREDIT HOURS		13

	Semester 7 - SENIOR YEAR	Credit
PHYS 691	Senior Research Project	2
300+	Minor Course	3
PHYS 742	Solid State Physics	3
PHYS 510	Analytical Mechanics	3
PHYS 714	Statistical Thermodynamics	3
TOTAL CREDIT HOURS		14

Code	Semester 2 - FRESHMAN YEAR	Credit	NOTES
ENGL 299	Intro to Research Writing (SGE) ⁰¹⁰	3	C or Better
Bucket 050	Social & Behavioral Science (SGE)	3	
CHEM 225	General Chemistry II	3	
CHEM 226	General Chemistry II Laboratory	2	
MATH 155	Calculus II	5	
TOTAL CREDIT HOURS		16	

	Semester 4 - SOPHOMORE YEAR	Credit
Bucket 050	Social & Behavioral Science (SGE) ⁰⁵⁰	3
Bucket 060	Arts & Humanities (SGE) ⁰⁶⁰	3
Bucket 070	Institutionally Designated (SGE) ⁰⁷⁰	1
PHYS 105	Engineering Physics II	4
PHYS 131	Elementary Physics Laboratory II	1
Bucket 060	Arts & Humanities (SGE) ⁰⁶⁰	3
TOTAL CREDIT HOURS		15

	Semester 6 - JUNIOR YEAR	Credit
PHYS 532	Solid State Electronic Devices (or PHYS 504)	3
MATH 553	Differential Equations	3
PHYS 500	Mathematical Physics	3
PHYS 530	Intermediate Physics Laboratory	3
300+	Minor Course	3
TOTAL CREDIT HOURS		15

	Semester 8 - SENIOR YEAR	Credit
PHYS 699	Senior Review and Assessment	1
PHYS 716	Introductory Quantum Mechanics	3
PHYS 512	Electricity and Magnetism	3
100+	Minor Course or Open Elective	3
300+	Minor Course	3
100+	Minor Course	3
TOTAL CREDIT HOURS		16

Writing to Learn: Typically one from general education and one in major coursework.

Systemwide General Education (SGE) Key

010 English	050 Social & Behavioral Sciences
020 Communications	060 Arts & Humanities
030 Math & Statistics	070 Institutionally Designated
040 Natural & Physical Sciences	