

BS Degree in Physics

The following is a sample schedule to help students plan their coursework. These are suggestions and the schedule is flexible. In addition to fulfilling the courses specifically required for this Physics degree, it is important that students also fulfill Liberal Arts and Sciences Curriculum requirements, Writing Intensive, and all other normal graduation requirements.

FIRST YEAR			
FALL	PHYS 200	General Physics I with Lab ¹	4
	MATH 260	Computer Calculus	1
	MATH 261	Calculus I ²	4
	FYE 101	First Year Experience	1
		LASC Electives ³	6
	TOTAL CREDITS	16	

FIRST YEAR			
SPRING	PHYS 201	General Physics II with Lab	4
	MATH 260	Computer Calculus	1
	MATH 262	Calculus II	4
		LASC Electives	6
		TOTAL CREDITS	15

SOPHOMORE YEAR			
FALL	PHYS 202	20th Century Physics	3
	PHYS 305	Experimental Physics I	3
	PHYS 315	Physics Seminar	1
	MATH 323	Multi-Variable & Vector Calc	4
		LASC Electives	3
	TOTAL CREDITS	14	

SOPHOMORE YEAR			
SPRING	PHYS 322	Elem Modern Physics	3
	PHYS 350	Comp. Methods for Physical Science	3
	MATH 366	Differential Equations	3
	ENGL 387	Technical Report Writing	4
		LASC Electives	3
	TOTAL CREDITS	16	

JUNIOR YEAR			
FALL	PHYS 330	Intermediate Mechanics	4
	PHYS ###	Physics Elective	3
	MATH 327	Intro to Linear Algebra ⁴	3
		LASC Electives	3
		Electives	3
	TOTAL CREDITS	16	

JUNIOR YEAR			
SPRING	PHYS 370	Electromagnetic Theory ⁶	4
	PHYS 306	Experimental Physics II	3
	PHYS 342	Intro to Research	1
	PHYS ###	Physics Electives	2
		LASC Electives	6
	TOTAL CREDITS	16	

SENIOR YEAR			
FALL	PHYS 492	Senior Project	2
	PHYS 399	Thermodynamics ⁵	3
	PHYS ###	Physics Elective	3
		LASC Electives ³	6
		TOTAL CREDITS	14

SENIOR YEAR			
SPRING	PHYS 430	Quantum Mechanics ⁶	3
	PHYS 315	Physics Seminar	1
		LASC Electives	3
		Electives	7
		TOTAL CREDITS	14

¹ If a student cannot take Calculus in the fall of freshman year, please consult your Advisor or the Department Chair about appropriate course(s) to take.
² ACT math scores or a mathematics placement exam is needed to decide whether a student should begin directly in calculus or a different math class.
³ In considering electives, keep in mind that all of the LASC requirements as well as Writing Intensive requirements must be fulfilled.
⁴ Recommended but not required.
⁵ Phys 399 offered on alternating year basis (only during odd years)
⁶ Phys 370 and Phys 430 are offered on alternating year basis (Phys 370 in even years, Phys 430 in odd years)

Core Requirements (31 credits)

Students may substitute PHYS 160 & 161 for PHYS 200 & 201.

COURSE	CREDITS	✓	COURSE	CREDITS	✓
PHYS 200: General Physics I and Lab	4	<input type="checkbox"/>	PHYS 330: Intermediate Mechanics	4	<input type="checkbox"/>
PHYS 201: General Physics II and Lab	4	<input type="checkbox"/>	PHYS 315: Physics Seminar	1	<input type="checkbox"/>
PHYS 202: Intro to 20th Century Physics	3	<input type="checkbox"/>	PHYS 306: Experimental Physics II (WI)	3	<input type="checkbox"/>
PHYS 305: Experimental Physics I (WI)	3	<input type="checkbox"/>	PHYS 342: Intro to Research	1	<input type="checkbox"/>
PHYS 322: Elementary Modern Physics	3	<input type="checkbox"/>	PHYS 492: Senior Project	2	<input type="checkbox"/>
PHYS 350: Computational Methods for Physical Science	3	<input type="checkbox"/>			

Related Requirements (19 credits)

Students are encouraged to take MATH 260 with MATH 261. Students are also encouraged to take Math 327 Linear Algebra (3 credits) and MATH 466 Differential Equations II (3 credits).

COURSE	CREDITS	✓	COURSE	CREDITS	✓
ENGL 387: Technical Report Writing (WI)	4	<input type="checkbox"/>	MATH 323: Multi-Variable & Vector Calculus	4	<input type="checkbox"/>
MATH 261: Calculus I	4	<input type="checkbox"/>	MATH 366: Differential Equations	3	<input type="checkbox"/>
MATH 262: Calculus II	4	<input type="checkbox"/>			

Electives (18 Credits)

Students must earn 18 elective credits in Physics at the 300 level or higher. PHYS 385, PHYS 440, and PHYS 442 may not be used for elective credits.

COURSE	CREDITS	✓	COURSE	CREDITS	✓
PHYS 302: Sustainable Energy	3	<input type="checkbox"/>	PHYS 430: Quantum Mechanics	3	<input type="checkbox"/>
PHYS 312: Analog Electronics	3	<input type="checkbox"/>	PHYS 469: Internship	1-2	<input type="checkbox"/>
PHYS 315: Physics Seminar	1	<input type="checkbox"/>	AST 324: Life and Death	3	<input type="checkbox"/>
PHYS 318: Biophysics and Medical Imaging	3	<input type="checkbox"/>	AST 360: Planetary Science	3	<input type="checkbox"/>
PHYS 325: Optics	3	<input type="checkbox"/>	AST 361: Stellar Astrophysics	3	<input type="checkbox"/>
PHYS 370: Electromagnetic Theory	4	<input type="checkbox"/>	AST 362: Galactic and Extragalactic Astrophysics	3	<input type="checkbox"/>
PHYS 385: Hiroshima Peace Studies Tour	3	<input type="checkbox"/>	AST 365: Cosmology	3	<input type="checkbox"/>
PHYS 394: Physics Research	1-2	<input type="checkbox"/>	AST 366: Observational Astronomy	3	<input type="checkbox"/>
PHYS 399: Thermodynamics	3	<input type="checkbox"/>			