

Cal Poly Department of Physics: **COURSE OFFERINGS 2021-2022**

COURSES in BOLD are required for Physics BS

Courses in Italics are source of advanced Physics electives; "lab" = upper division lab

SU=Summer, F=Fall, W=Winter, SP=Spring

*** OFFERINGS ARE SUBJECT TO CHANGE. Courses with low enrollment may be cancelled.**

ASTR-Astronomy (2021-2025)			
Course#	Units	Course Title	Qtr(s) Offered*
ASTR 101	4	Introduction to the Solar System	F, W, SP, SU
ASTR 102	4	Introduction to the Stars and Galaxies	F, W, SP
ASTR 200	1 to 2	Special Problems for Undergraduates	As needed
ASTR 301	3	Planetary Systems	W22, W23, W24
ASTR 302	3	Stars and Galaxies	SP
ASTR 324	4	Longitude, Navigation, and Timekeeping	W
ASTR 326	3	Cosmology	F21, F23, F24, F25
ASTR 400	1 to 2	Special Problems for Advanced Undergraduates	As needed
ASTR 404	1 to 2	Research Experience for Advanced Undergraduates	As needed
ASTR 444	4	Observational Astronomy (lab)	F22, F23, F24
GEOL-Geology			
Course#	Units	Course Title	Qtr(s) Offered*
GEOL 102	4	Introduction to Geology	W
GEOL 200	1 to 2	Special Problems for Advanced Undergraduates	As needed
GEOL 201	3	Physical Geology	F, W, SP
GEOL 203	4	The Geologic Record: Fossils and the History of Life	W
GEOL 206	1	Geologic Excursions	F, SP
GEOL 241	1	Physical Geology Laboratory	F, W, SP
GEOL 301	4	Physical Models in the Geosciences	F21, F23
GEOL 303	3	Computation and Visualization in the Geosciences	W22, W24
GEOL 305	4	Seismology and Earth Structure	SP22, SP24
GEOL 309	3	Igneous Petrology	W23, W25
GEOL 311	3	Metamorphic Petrology	SP23, SP25
GEOL 330	4	Principles of Stratigraphy	SP22, SP24
GEOL 400	1 to 2	Special Problems for Advanced Undergraduates	As needed
GEOL 401	4	Field-Geology Methods	W
GEOL 402	4	Geologic Mapping	SP
GEOL 404	1 to 2	Research Experience for Advanced Undergraduates	As needed
GEOL 415	4	Structural Geology	F
GEOL 420	3	Applied Geophysics	F
PHYS-Physics (100-200 Level)			
Course#	Units	Course Title	Qtr(s) Offered*
PHYS 104	4	Introductory Physics	F
PHYS 111	4	Contemporary Physics for Non-Scientists	F
PHYS 121	4	College Physics I	F, W, SP, SU
PHYS 122	4	College Physics II	F, W, SP, SU
PHYS 123	4	College Physics III	F, W, SP
PHYS 125	1	College Physics I Laboratory	F, W, SP
PHYS 132	4	General Physics II /Calculus Based	F, W, SP, SU
PHYS 133	4	General Physics III /Calculus Based	F, W, SP, SU
PHYS 141	4	General Physics/Calculus Based	F, W, SP, SU
PHYS 200	1 to 2	Special Problems for Undergraduates	As needed
PHYS 202	4	Physics on the Computer	SP
PHYS 206	4	Instrumentation in Experimental Physics	W
PHYS 211	4	Modern Physics I	F, W, SP
PHYS 212	4	Modern Physics II	SP
PHYS 220	1 (CR/NC)	Introduction to Physics Research	W
PHYS-Physics (300-400 Level)			
Course#	Units	Course Title	Qtr(s) Offered*
PHYS 301	4	Thermal Physics I	W
PHYS 305	4	Classical Mechanics	F
PHYS 306	3	Classical Mechanics II	W

PHYS 310	3	Physics of Energy	SP23, SP25
PHYS 313	3	Introduction to Atmospheric Physics	SP23, SP25
PHYS 314	3	Ocean Dynamics	SP22
PHYS 315	3	Lasers	SP22, SP24
PHYS 318	3	Special Theory of Relativity	W22, W24
PHYS 320	4	Methods of Theoretical Physics I	F
PHYS 321	4	Methods of Theoretical Physics II	W
PHYS 323	4	Optics (lab)	W
PHYS 330	4	Teaching Physics	SP22
PHYS 340	2	Quantum Physics Lab I (lab)	F
PHYS 341	2	Quantum Physics Lab II (lab)	W
PHYS 342	1	Quantum Physics Lab III (lab)	SP
PHYS 357	3	Advanced Instrumentation in Experimental Physics (lab)	SP23, SP25
PHYS 400	1 to 2	Special Problems for Advanced Undergraduates	As needed
PHYS 401	3	Thermal Physics II	SP22, SP24
PHYS 403	3	Nuclear and Particle Physics	SP23, SP25
PHYS 404	1	Research Experience for Advanced Undergraduates	As needed
PHYS 405	4	Quantum Mechanics I	SP
PHYS 406	3	Quantum Mechanics II	F
PHYS 408	4	Electromagnetic Fields and Waves I	F
PHYS 409	3	Electromagnetic Fields and Waves II	W
PHYS 410	3	Physics of the Solid Earth	W23, W25
PHYS 412	3	Solid State Physics	F
PHYS 413	3	Advanced Topics in Solid State Physics	SP22, SP24
PHYS 417	4	Nonlinear Dynamical Systems (lab)	SP22, SP24
PHYS 418	3	Introduction to General Relativity	SP23, SP25
PHYS 422	1	Polymer Electronics Laboratory (lab)	SP23, SP25
PHYS 423	4	Advanced Optics (lab)	SP23, SP25
PHYS 452	1	Solid State Physics Laboratory (lab)	SP22, SP24
PHYS 461/462	2, 2	Senior Project	F, W, SP, SU
PHYS 463/464	2, 2	Senior Project-Laboratory Research	F, W, SP, SU
PHYS 470	1 to 4	Selected Advanced Topics	As needed
PHYS 471	1 to 4	Selected Advanced Laboratory	As needed
PHYS 485	6	Cooperative Education - Part-time	As needed
PHYS 495	12	Cooperative Education - Full-time	As needed

PSC-Physical Science

Course#	Units	Course Title	Qtr(s) Offered*
PSC 101	4	Matter and Energy	F, W, SP
PSC 102	4	Atoms and Molecules	W
PSC 103	4	The Physical Environment: Earth	SP
PSC 201	4	Physical Oceanography	F, W, SP
PSC 307	4	Nuclear Energy and Weapons in the Modern World	SP22
PSC 320	4	Energy, Society and the Environment	W
PSC 391	4	Appropriate Technology for the World's People; Development	F
PSC 392	4	Appropriate Technology for the World's People: Design	SP
PSC 424	4	Organizing and Teaching Science	F
PSC 425	2	Clinical Experience in Teaching Science Seminar	W, SP
PSC 491	4	Appropriate Technology for the World's People; Development	F
PSC 492	4	Appropriate Technology for the World's People: Design	SP

SCM - Science and Math

Course#	Units	Course Title	Qtr(s) Offered*
SCM 302	2	The Learn By Doing Lab Teaching Practicum	W, SP
SCM 230	2	Learning Assistants Seminar	F, W, SP
SCM 360	4	Selected Environmental Issues of California's Central Coast	SP23