

BS in Physics with DragonsTeach Concentration

* Dragons Teach Courses in Blue

General Education Requirements

ENGL 101	Composition and Rhetoric I: Inquiry and Exploratory Research	3
ENGL 102	Composition and Rhetoric II: The Craft of Persuasion	3
ENGL 103	Composition and Rhetoric III: Thematic Analysis Across Genres	3
UNIV S101	The Drexel Experience	1
CIVC 101	Introduction to Civic Engagement	1

Core Physics Requirements

PHYS 113	Contemporary Physics I	5
PHYS 114	Contemporary Physics II	5
PHYS 115	Contemporary Physics III	5
PHYS 105	Computational Physics I	3
PHYS 217	Thermodynamics	4
PHYS 311	Classical Mechanics I	4
PHYS 223 [WI]	Modern Physics Laboratory	3
PHYS 317	Statistical Mechanics	3
PHYS 321	Electromagnetic Fields I	4
PHYS 322	Electromagnetic Fields II	4
PHYS 326	Quantum Mechanics I	4
PHYS 327	Quantum Mechanics II	4
PHYS 328 [WI]	Advanced Laboratory	3
PHYS 408	Physics Seminar (To be taken 3 times.)	3

Methods Classes: Complete 12 credits from the following: 12

PHYS 160	Introduction to Scientific Computing
PHYS 226	Instrumentation for Scientists I
PHYS 227	Instrumentation for Scientists II
PHYS 232	Observational Astrophysics
PHYS 305	Computational Physics II
PHYS 324	Topics in Mathematical Physics
PHYS 325	Computational Physics III
PHYS 405	Advanced Computational Physics
MATH 322	Complex Variables
MATH 323	Partial Differential Equations
MATH 331	Abstract Algebra I
MATH 489	Tensor Analysis

Subject Courses: Complete 15 credits from the following: ** 15

PHYS 231	Introductory Astrophysics
PHYS 262	Introduction to Biophysics
HNRS 301	Colloquium II (Special Relativity)
PHYS 330	Introduction to Nuclear Physics
PHYS 312	Classical Mechanics II
PHYS 428	Quantum Mechanics III
PHYS 431	Galactic Astrophysics
PHYS 432	Cosmology
PHYS 452	Solid State Physics
PHYS 453	Nanoscience
PHYS 461	Biophysics
PHYS 462	Computational Biophysics
PHYS 463	Single Molecule Methods
PHYS 471	Nonlinear Dynamics

PHYS 476 Particle Physics

Math and Technical Requirements

MATH 121	Calculus I	4
MATH 122	Calculus II	4
MATH 123	Calculus III	4
MATH 200	Multivariate Calculus	4
MATH 201	Linear Algebra	4
or MATH 261	Linear Algebra	
MATH 210	Differential Equations	4
Sciences		
CHEM 101	General Chemistry I	3.5
CHEM 102	General Chemistry II	4.5
CHEM 103	General Chemistry III (OR Any Bio OR an ENGR class at 200 or higher)	5
CS 171	Computer Programming I	3

Liberal Electives

ESTM 301	Knowing, Learning, and Classroom Interactions I	3
ESTM 302	Knowing, Learning, and Classroom Interactions II	3
ESTM 303	Knowing, Learning, and Classroom Interactions III	3

Technical Elective

Select one course from BIO, CHEM, ENVS, GEO, MATH, PHYS or any course from CoE		3
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Business Elective

4

Free Electives

ESTM 360	Perspective on Science and Math	3
ESTM 201	STEM Teacher Education Prep (STEP 1)	1.5
ESTM 210	STEM Teacher Education Prep (STEP 2)	1.5
ESTM 350 (PBI)	Project Based Instruction	3
ESTM 351 (PBI Lab)	Project Based Instruction Lab	1.5
ESTM 371 (Research Methods)	Research Methods	4
EDEX 142	Spec Ed Foundations: Referral & Assessment	3
EDEX 244	Inclus Practice for Exceptional Students	3
EDEX 265	Instructing Eng Lang Learners	3
ESTM 401	Apprentice Teaching & Seminar	6
	Additional Elective	3

Total Credits

180.5