

THE UNIVERSITY OF RHODE ISLAND  
College of Education and Professional Studies  
School of Education

Specialization Requirements in Secondary Education - **PHYSICS**

**Required:**

Date(s) Completed	Grade	Course Number	Title	Prerequisites	Credits
		PHY 203 & 273	Elementary Physics I and Lab	MTH 141 (could be concurrent)	3 & 1
		PHY 204 & 274	Elementary Physics II and Lab	PHY 203, MTH 142 (could be concurrent)	3 & 1
		PHY 205 & 275	Elementary Physics III and Lab	PHY 203, MTH 243 or MTH 362 (could be concurrent)	3 & 1
		PHY 306 (Spring only)	Elementary Modern Physics	PHY 204 and 205	3
		PHY 322 (Fall only)	Mechanics	PHY 204 and MTH 244	3
		PHY 331 (Spring only)	Electricity and Magnetism	PHY 204 and MTH 243	3
		PHY 381 (Fall only) & PHY 382 (Spring only)	Advanced Laboratory Physics	PHY 204 and 205	6
		PHY 401 (Fall only)	Seminar in Physics		1
		PHY 451 (Fall only)	Introduction to Quantum Mechanics	PHY 306 and 322, and MTH 215, and 244	3
		PHY 452	Quantum Mechanics: Techniques and Applications	PHY 451 and MTH 461.	3
		PHY 455	Introduction to Solid-State Physics	PHY 451 and MTH 243	3
		PHY 483 & 484 (capstones)	Laboratory And Research Problems In Physics	PHY 381 and 382.	6
		PHY 510	Mathematical Methods of Physics I	permission of chairperson	3

Total Physics credit hours required (minimum)

52

**Additional science and math requirements:**

MTH 141, 142, 215, 243, 244, 300- or 400-level elective (Calculus and differential equations are prerequisites for upper level Physics courses) AND CSC 211.

**A course of chemistry or a course related to nature of science**

		Choose 1: CHM____; GWS 220; HIS 116; PHL 215; BIO/GEO 272			3
--	--	---	--	--	---

**A course from the following:**

		Choose 1: GEO 103; BIO 101; BIO 102; AST 108			3
--	--	--	--	--	---