RAMAPO COLLEGE

School of Theoretical and Applied Science

Engineering Physics

Recommended Four-Year Plan (Fall 2020)

The recommended four-year plan is designed to provide a blueprint for students to complete their degrees within four years. Students must meet with their Major Advisor to develop a more individualized plan to complete their degree. This plan assumes that no developmental courses are required. If developmental courses are needed, students may have additional requirements to fulfill which are not listed in the plan and may extend degree completion.

NOTE: This recommended Four-Year Plan is applicable to students admitted into the major during the 2020-2021 academic year.

First Year						
Fall Semester	HRS	✓	Spring Semester	HRS	✓	
Gen Ed: PHYS 116 and PHYS 116L - Physics I w/Calculus and Introductory Physics I Lab	4+1		PHYS 117 and PHYS 117L-Physics w/ Calculus II and Introductory Physics II Lab	4+1		
Gen Ed: MATH 121- Calculus I	4		MATH 122-Calculus II	4		
Gen Ed: INTD 101-First Year Seminar	4		Gen Ed: SOSC 110-Social Science Inquiry	4		
Gen Ed: CRWT 102-Critical Reading & Writing II	4		Gen Ed: Historical Perspectives	4		
			Career Pathways: SCIN 001 – Career Pathways Module 1	Degree Rqmt.		
Total:	17		Total:	17		

Second Year							
Fall Semester	HRS	✓	Spring Semester	HRS	✓		
PHYS 214-Modern Physics WI	4		MATH 305-Differential Equations	4			
PHYS 215- Modern Physics Techniques and Measurements	4		CMPS 147-Computer Science I	4			
MATH 225-Multivariable Calculus	4		PHYS 242-Electronic Circuits & Devices WI	4			
Gen Ed: AIID 201-Studies in Arts & Humanities	4		Gen Ed: Global Awareness	4			
Career Pathways: SCIN 002 – Career Pathways Module 2	Degree Rqmt.		Career Pathways: SCIN 003 – Career Pathways Module 3	Degree Rqmt.			
Total:	16		Total:	16			

Third Year						
Fall Semester	HRS	1	Spring Semester	HRS	✓	
PHYS Elective	4		PHYS 323-Electrodynamics I	4		
PHYS 350-Thermodynamics	4		PHYS 322-Advanced Mechanics	4		
PHYS Elective	4		Gen Ed: Culture & Creativity, Systems Sustainability & Society, or Values & Ethics	4		
Gen Ed: Culture & Creativity, Systems Sustainability & Society, or Values & Ethics	4		Elective	4		
Total:	16		Total:	16		

Fourth Year						
Fall Semester	HRS	✓	Spring Semester	HRS	✓	
PHYS 423-Quantum Mechanics I	4		PHYS Elective	4		
PHYS 431-Experimental Methods WI	4		PHYS 422-Cond. Matter & Nuclear Physics	4		
Elective	4		Elective	4		

Elective	4	Elective	2	
Total:	16	Total:	14	

Total Credits Required: 128 credits GPA required: 2.0 WI: Writing Intensive-3 required in the major