

Physics Studies course planning guide

Physics Studies is a companion major designed specifically to coordinate with **Engineering**, **Chemistry**, and **Mathematics** majors and also suited to accompany any baccalaureate major. Also suitable as a base for alternative certification in physics secondary education.

Year	Semester	Type	Subject	Code	Course Title	Total credit	
19-20	Fall	Cognate	MATH	191	Calculus I	4	
		Major requirement	PHYS	277	Physics Colloquium (or MATH 389)	0	
	Fall Total						4
	Spring	Cognate	MATH	192	Calculus II	4	
		Major requirement	PHYS	277	Physics Colloquium (or MATH 389)	0	
		Optional	PHYS	478	Study Tour: APS Convention	0	
	Spring Total						4
	19-20 Total						8
	20-21	Fall	Cognate	MATH	240	Calculus III	4
			Major requirement	PHYS	241	Physics for Scientists and Engineers I	4
Major requirement			PHYS	271	Physics for Scientists and Engineers Laboratory I	1	
Major requirement			PHYS	277	Physics Colloquium (or MATH 389)	0	
Fall Total						9	
Spring		Cognate	MATH	286	Differential Equations	3	
		Major requirement	PHYS	242	Physics for Scientists and Engineers II	4	
		Major requirement	PHYS	272	Physics for Scientists and Engineers Laboratory II	1	
		Major requirement	PHYS	277	Physics Colloquium (or MATH 389)	0	
		Major requirement	PHYS	311	Theoretical Mechanics I (or ENGR 285 and PHYS 412)	3	
Optional	PHYS	478	Study Tour: APS Convention	0			
Spring Total						11	
20-21 Total						20	
21-22	Fall	Major requirement	PHYS	277	Physics Colloquium (or MATH 389)	0	
		Major requirement	PHYS	431	Electricity and Magnetism I (or ENGR 435)	3	
		Major requirement	PHYS	330	Thermodynamics and Statistical Mechanics	3	
	Fall Total						6
	Spring	Major requirement	PHYS	277	Physics Colloquium (or MATH 389)	0	
		Major requirement	PHYS	377	Advanced Physics Laboratory I	1	
		Major requirement: elective	PHYS	-	PHYS 300 and above: elective selected with your advisor	3	
		Optional	PHYS	478	Study Tour: APS Convention	0	
	Spring Total						4
	21-22 Total						10
22-23	Fall	Major requirement	PHYS	277	Physics Colloquium (or MATH 389)	0	
		Major requirement	PHYS	481	Quantum Mechanics I	3	
		Major requirement: elective	PHYS	-	If not taking PHYS 412: PHYS 300 and above: elective selected with your advisor	3	
	Fall Total						6
	Spring	Major requirement	PHYS	277	Physics Colloquium (or MATH 389)	0	
		Major requirement	PHYS	495	Physics Research	1	
Optional		PHYS	478	Study Tour: APS Convention	0		
Spring Total						1	
22-23 Total						7	
Grand Total						45	