

Winona State University
Four Year Map
Physics Option 2 (PHYE)

Fall Year 1			Spring Year 1		
Course	Requirement Met	SH	Course	Requirement Met	SH
Chemistry 212, Principles of Chemistry I	GE Goal 3/Major	4	Chemistry 213, Principles of Chemistry I	GE Goal 3/Major	4
Math 120, PreCalc	GE Goal 4	4	Math 212, Calculus 1	GE Goal 4/Major	4
English 111, College Rdg/Wrt	GE Goal 1	4	Communication Studies 191	GE Goal 1	3
OR 100, Intro to Higher Education	Gen Elective	1	Physics 221, University Physics 1	GE Goal 3/Major	4
General Education Elective	GE Goal 5/6/7/8/9/10	3	Physics 231, University Physics 1B	Major	1
Phys 099, The Career Physicist	Major	0	Phys 099, The Career Physicist	Major	0
Notes : May swap Eng 111 with CMST 191 in Spring			Notes :		
		Total SH			Total SH
		16			16
Fall Year 2			Spring Year 2		
Course	Requirement Met	SH	Course	Requirement Met	SH
Math 213, Calculus 2	GE Goal 4/Major	4	Physics 340, Modern Physics	Major/WI	4
Physics 222, University Physics 2	GE Goal 3/Major	4	Math 313, Differential Equations	Major	3
Physics 232, University Physics 2B	Major	1	Math 314, Linear Algebra and Diff Eq	Major	1
General Education Elective	GE Goal 5/6/7/8/9/10	3	General Education Elective	GE Goal 5/6/7/8/9/10	3
General Education Elective	GE Goal 5/6/7/8/9/10	3	Physics 328, Electrical Circuits and Meas	Major	4
Notes :			Notes :		
		Total SH			Total SH
		15			15
Fall Year 3			Spring Year 3		
Course	Requirement Met	SH	Course	Requirement Met	SH
Physics 332, Digital Circuits	Major	3	Physics 420, Control Theory	Major	3
Physics 330, Electronics	Major/WI	4	Physics Elective	Major E	3
Math 312, Multivariable Calculus	Major/CAI	4	General Education Elective	GE Goal 5/6/7/8/9/10	3
Phys 099, The Career Physicist	Major	0	General Education Elective	GE Goal 5/6/7/8/9/10	3
Computer Science 234, Algorithms and	Major	4	Phys 099, The Career Physicist	Major	0
General Education Elective	GE Goal 5/6/7/8/9/10	3	Physics 333, Microprocessor	Major	3
Notes :			Notes : If you haven't yet, talk to advisor about post graduation plans		
		Total SH			Total SH
		18			15
Fall Year 4			Spring Year 4		
Course	Requirement Met	SH	Course	Requirement Met	SH
Physics 430, Electricity and Magnetism	Major/CAI	3	Physics 321, Computerized Data Acquisition	Major	2
Physics 460, Undergraduate Research	Major/OI	2	Physics Elective	Major E	4
Physics 320, Computational	Major	2	Physics 460, Undergraduate Research	Major/OI	2
General Education Elective	GE Goal 5/6/7/8/9/10	3	Physics Elective	Major E	3
General Education Elective	GE Goal 5/6/7/8/9/10	3	General Education Elective	GE Goal 5/6/7/8/9/10	3
Notes :			Notes : Apply for graduation		
		Total SH			Total SH
		13			14

Updated on 1/26/2017

Key:

GE goal	General Education Goal Area
GE	A general elective that counts toward graduation but does not
Major	Satisfies a major requirement
Minor	Satisfies a minor requirement
Major E	Satisfies a major elective
CAI	Critical Analysis Intensive
OI	Oral Intensive
WI	Written Intensive
PDW	Personal Development and Wellness

General Education Goals (please see website for more information)

Goal 1	Communication (7 credits)
Goal 2	Critical Thinking (met when all other goals met)
Goal 3	Natural Science (7 credits)
Goal 4	Mathematics/Logical Reasoning (3 - 4 credits)
Goal 5	Social/Behavioral Sciences (9 SH)
Goal 6	Humanities and Fine Arts (9 credits)
Goal 7	Human Diversity (3 SH)
Goal 8	Global Perspective (3 SH)
Goal 9	Ethic and Civic Responsibility (3 SH)
Goal 10	People and the Environment (3 SH)

Course offered every other year

Phys 320
Phys 321
Phys 332
Phys 333
Phys 345
Phys 350
Phys 420
Phys 430
Phys 431
Phys 451