

# Winona State University Four-Year Program Map

Program: Physics Teaching (BT PHST)

Emphasis (optional):

	Fall Semester		Spring Semester			
	Course	Requirement Met	SH	Course	Requirement Met	SH
Year 1	CHEM 212 Principles of Chemistry I	GE Goal 3/Major	4	CHEM 213 Principles of Chemistry II	GE Goal 3/Major	4
	MATH 120 Precalculus	GE Goal 4	4	MATH 212 Calculus I	GE Goal 4/Major	4
	ENG111 College Rdg/Wrtg or CMST191/2 Speaking	GE Goal 1/Major	3-4	ENG111 College Rdg/Wrtg or CMST191/2 Speaking	GE Goal 1/Major	3-4
	OR 100 Intro to Higher Education	GE	1	PHYS 221 University Physics I	GE Goal 3/Major	4
	PHYS 099 The Career Physicist	Major (Recommend)	0	PHYS 231 University Physics IB	Major	1
	General Education Course (double count)	GE Goal 5/6/7/8/9/10	3	PHYS 099 The Career Physicist	Major (Recommend)	0
	NOTE: Check for admissions requirements			NOTE: Track admission requirements		
	First-Year Fall Semester Credit Hour Total			First-Year Spring Semester Credit Hour Total		16-17
Year 2	MATH 213 Calculus II	GE Goal 4/Major	4	MATH 313 Differential Equations	Major/CAI	4
	PHYS 222 University Physics II	GE Goal 3/Major	4	PHYS 340 Modern Physics	Major/WI	4
	PHYS 232 University Physics IIB	Major	1	PHYS 370 Optics	Major/WI	4
	SPED 300 Children and Youth with Exceptionalities	Major	3	EDFD 401 Human Dev/Learn: K-12 & 5-12	Major	2
	HERS 204 Personal & Community Health	Major/PDW	3	EDFD 461 Multicultural Youth, Children & Families	Major	2
	General Education Course (double count)	GE Goal 5/6/7/8/9/10				
	NOTE: Apply for admission to Teacher Education Program. See admissions requirements. For Willicensure, take BIOL104 which also covers Goals 8 and 10		or WI	NOTE: EDFD 401 and 461 must be taken concurrently		
	Second-Year Fall Semester Credit Hour Total		18	Second-Year Spring Semester Credit Hour Total		16
Year 3	CHEM 311 Science Teaching Methods	Major	4	PHYS 312 Practical Considerations of Teaching Science	Major	2
	PHYS 330 Electronics	Major/WI	4	PHYS 345 Thermodynamics & Statistical Physics	Major/CAI	4
	PHYS 350 Mechanics	Major	4	EDFD 459 Professional Educator	Major	3
	EDFD 421 Classroom Management: K-12 & 5-12	Major	1	EDFD 462 Multicultural Youth, Children & Families Part II	Major	1
	EDFD 441 Curriculum, Instruction, & Assessment	Major	3	General Education Course (double count)	GE Goal 5/6/7/8/9/10	3
	PHYS 099 The Career Physicist	Major (Recommend)	0	General Education Course	GE Goal 5/6/7/8/9/10	3
				PHYS 099 The Career Physicist	Major (Recommend)	0
	NOTE: EDFD 421 and 441 must be taken concurrently			NOTE: EDFD 459 and 462 must be taken concurrently. Apply for student teaching.		
	Third-Year Fall Semester Credit Hour Total		16	hird-Year Spring Semester Credit Hour Total		16
Year 4	EDUC 429 Secondary Reading & Teaching Strategies	Major	3	EDST 465 Student Teaching	Major/OI	12
	PHYS 320 Computational Physics	Major	2			
	PHYS 460 Undergraduate Research	Major/OI	2			
	General Education Course	GE Goal 5/6/7/8/9/10	3			
	General Education Course	GE Goal 5/6/7/8/9/10	3			
	General Education Course	GE Goal 5/6/7/8/9/10	3			
				NOTE: Apply for Graduation. Finish licensure requirements		
	Fourth-Year Fall Semester Credit Hour Total		16	Fourth-Year Spring Semester Credit Hour Total		12



## Winona State University Four-Year Program Map

### Guide to 4 Year Major Maps

- 4 Year Major Maps are intended to show a recommended four-year pathway to a degree. Students must be full-time, college ready, and ready to declare a major to follow the map exactly as shown. Maps are only a sample; there may be other pathways that lead to completion of the degree in four years.
- Major Maps are NOT intended to take the place of meetings with advisors.
- Major Maps are NOT intended to take the place of the Degree Audit (DARs/uAchieve).

All courses listed on a major map will be labelled as one or more of the following:

GE Goal	General Education Goal	Indicates that the course meets one of the 10			
GE Goal					
	Area	General Education Goals			
Gen General Elective		Indicates that the course does not meet a			
Elec		General Education, Major or Minor requirement			
		but does count toward the degree			
Major	Major Requirement	Indicates that the course meets a Major			
		requirement			
Major	Major Elective	Indicates that the course counts toward the			
Elec		major as an elective, must be chosen from list			
		of approved courses			
Minor	Minor Requirement	Indicates that the course meets a Minor			
		requirement			
CAI	Critical Analysis	Indicates that the course counts as a Critical			
	Intensive	Analysis Intensive			
OI	Oral Intensive	Indicates that the course counts as an Oral			
		Intensive			
WI	Written Intensive	Indicates that the course counts as a Written			
		Intensive			
PDW	Personal Development	Indicates that the course counts as a Personal			
	and Wellness	Development and Wellness Requirement			

#### General Education Goal Areas:

		Minimum required	credits
Goal 1	Communication	7 credits	
Goal 2	Critical Thinking (Met with completion of all other goal areas)		
Goal 3	Natural Science	7 credits	
Goal 4	Mathematics	3-4 credits	
Goal 5	History, Social/Behavioral Sciences	9 credits	
Goal 6	Humanities and Fine Arts	9 credits	
Goal 7	Human Diversity	3 credits	
Goal 8	Global Perspective	3 credits	
Goal 9	Ethic and Civic Responsibility	3 credits	
Goal 10	People and the Environment	3 credits	

#### **Graduation Requirements:**

- Minimum of 120 total credits (semester hours) required for Bachelors' Degree
- Minimum of 40 General Education credits required
- Minimum of 40 Upper Division credits required
- Minimum of 30 Residence credits required in Junior/Senior years
- Minimum WSU cumulative grade point average of 2.00; some programs require higher grade point averages

Major Maps are not contracts. Winona State University reserves the right to make changes at any time, without prior notice, to programs, policies, procedures, and information described in this major map. Students should consult the appropriate academic department or college for currently accurate program information.