



Undergraduate Degree Map for Completion in Four Years

College:	College of Science, Engineering & Technology <input type="button" value="v"/>
Department:	Physics & Astronomy <input type="button" value="v"/>
Name of Program:	PHYSICS EDUCATION <input type="button" value="v"/>
Degree Designation:	BS <input type="button" value="v"/>
Emphasis/Concentration:	<input type="text"/> <input type="button" value="v"/>
Option:	<input type="text"/>
Version:	1 <input type="button" value="v"/>
Version Explanation:	This option is for students starting from Phys 211 and 212, the Principles of Physics. Students taking this option will take Phys 221-233, General physics sequence as their advanced physics courses.
Type of Program:	Standard Major <input type="button" value="v"/>
Minor Required:	No <input type="button" value="v"/>
Specific Minor (if required):	<input type="text"/>

<p>Program Description: Physics education degree is the physics science teaching degree. Completion of the degree requirements certifies the graduates to be high school physics teachers in the state of Minnesota.</p>
<p>Admission Requirements: Earned at least 32 Credit hours and GPA > 2.75. Registration for the Minnesota Teacher Licensure Exam Basic Skills exam. Enrollment or completion of KSP220. C grade or better in ENG 101 and General Education Math courses.</p>
<p>Advising: You are expected to meet with your advisor on a regular basis to ensure courses are taken in an order that will lead to successful completion of the degree.</p> <div style="border: 1px solid black; height: 20px; width: 100%; margin-top: 5px;"></div> <p>A complete listing of program faculty, policies, and course descriptions is available in the undergraduate bulletin.</p>

TERM 1 - FALL

Designator:	Course:	Course Name:	Credits:	Milestones:
				Overall GPA \geq 2.0 Course Completion Rate \geq 67% Completion of \geq 15 credit hours

<i>Designator:</i>	<i>Course:</i>	<i>Course Name:</i>	<i>Credits:</i>	<i>Milestones:</i>
				Overall GPA \geq 2.0 Course Completion Rate \geq 67% Completion of \geq 15 credit hours
Math	121	Calculus I	4.0	
Biol	105	General biology I	4.0	
Ast	101	Introduction to Astronomy	3.0	
Phys	211	Principles of Physics I	4.0	

Insert item

Term 1 Notes:

A student not pursuing this option will have heavier physics loads later in his/her academic career.

TERM 2 - SPRING

<i>Designator:</i>	<i>Course:</i>	<i>Course Name:</i>	<i>Credits:</i>	<i>Milestones:</i>
				Overall GPA \geq 2.0 Course Completion Rate \geq 67% Completion of \geq 30 credit hours Advance to Sophomore status
Math	122	Calculus II	4.0	
Phys	212	Principles of Physics II	4.0	
Phys	221	General Physics I	4.0	
Biol	106	General Biology II	4.0	

Insert item

Term 2 Notes:

TERM 3 - FALL

<i>Designator:</i>	<i>Course:</i>	<i>Course Name:</i>	<i>Credits:</i>	<i>Milestones:</i>
				Overall GPA \geq 2.0 Course Completion Rate \geq 67%
Chem	201	General Chemistry	5.0	
HLTH	240	Drug Education	3.0	
Phys	222	General Physics II	3.0	
Phys	232	General Physics II lab	1.0	
General Education		Any general education courses	3.0	

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Term 3 Notes:

TERM 4 - SPRING

<i>Designator:</i>	<i>Course:</i>	<i>Course Name:</i>	<i>Credits:</i>	<i>Milestones:</i>
				Overall GPA \geq 2.0 Course Completion Rate \geq 67% Completion of \geq 60 credit hours Advance to Junior status
KSP	202	Technology integration in the classroom	2.0	
Phys	223	General Physics III	3.0	
Phys	233	General Physics III lab	1.0	
Phys	335	Modern Physics I	3.0	
Geol	121	Physical Geology	4.0	
General Education		Any general education courses	3.0	

Insert item

Term 4 Notes:

Apply for admission to professional Education if not already admitted.
May take a diversity culture course or a writing intensive course

TERM 5 - FALL

<i>Designator:</i>	<i>Course:</i>	<i>Course Name:</i>	<i>Credits:</i>	<i>Milestones:</i>
				Overall GPA \geq 2.0 Course Completion Rate \geq 67% Apply for Graduation
KSP	220W	Human Relations in a Multicultural Society	3.0	
KSP	222	Introduction to the learner and learning	5.0	
Phys	336	Modern Physics II	3.0	
Phys	381	Tutoring Physics	2.0	
CS	110	Computer Science I	3.0	

Insert item

Term 5 Notes:

CS 110 is the prerequisite of Phys 465. It is only offered in fall semesters. Apply for admission to professional Education if not already admitted

TERM 6 - SPRING

<i>Designator:</i>	<i>Course:</i>	<i>Course Name:</i>	<i>Credits:</i>	<i>Milestones:</i>
				Overall GPA \geq 2.0 Course Completion Rate \geq 67% Completion of \geq 90 credit hours Advance to Senior status
KSP	330	Planning, Instruction, and Evaluation in the classroom	5.0	
Phys	482	Teaching Methods and Materials in Physical Science	4.0	
Geol	310	Earth and Space Systems	3.0	
General Education		General Education courses	4.0	Check uncovered Goal Areas in General Education requirements

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Term 6 Notes:

May take a diversity culture course or a writing intensive course. Apply for graduation.

TERM 7 - FALL

<i>Designator:</i>	<i>Course:</i>	<i>Course Name:</i>	<i>Credits:</i>	<i>Milestones:</i>
				Overall GPA \geq 2.0 Course Completion Rate \geq 67%
Phys	465	Computer application in Physics	3.0	
Phys	493	Undergraduate Research	2.0	
KSP	440	Creating learning environments to engage children, families and communities	3.0	
KSP	442	Reading, literacy and differentiated Instruction in the inclusive classroom	3.0	
General education or physics electives		General education courses or upper division physics courses	3.0	

Insert item

Term 7 Notes:

May take a diversity culture course or a writing intensive course

TERM 8 - SPRING

<i>Designator:</i>	<i>Course:</i>	<i>Course Name:</i>	<i>Credits:</i>	<i>Milestones:</i>
				Overall GPA \geq 2.0 Course Completion Rate \geq 67%
KSP	464	Professional Seminar	1.0	
KSP	477	Student Teaching	11.0	

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Term 8 Notes:**PROGRAM NOTES****DEGREE MAP CHECKLIST: GRADUATION REQUIREMENTS**

<input checked="" type="checkbox"/>	1. Minimum of 15 credits per semester
<input checked="" type="checkbox"/>	2. General Education = 44 credits
<input checked="" type="checkbox"/>	3. Diverse Cultures = 2 course (6 credits minimum) from two disciplines
<input checked="" type="checkbox"/>	4. Writing Intensive = 2 courses (6 credits minimum)

<input checked="" type="checkbox"/>	5. Major = <input type="text" value="21"/> credits
<input checked="" type="checkbox"/>	6. Upper-Division Requirements = 40 credits minimum
<input checked="" type="checkbox"/>	7. Professional Education (if required) = 30 credits
<input type="checkbox"/>	8. Language Requirements (if BA) = 8 credits minimum
<input type="checkbox"/>	9. Minor = <input type="text"/> credits
<input checked="" type="checkbox"/>	10. Total credits required for degree <input type="text" value="120"/>

DEGREE MAP COMPLETE

<input checked="" type="checkbox"/>	<p>Map is complete and ready for review</p> <ol style="list-style-type: none"> 1. Faculty please send an email to your Department Chair when map is ready to review. 2. Department Chair please send an email to your Dean when map is ready to review. 3. Dean please send an email to the Assistant Vice President for Undergraduate Studies when map is ready to review.
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DEAN APPROVAL

<input checked="" type="checkbox"/>	Map reviewed and approved by Dean
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Save and Close