



**DEGREE WORKSHEET FOR:  
BS Physics, Teaching Emphasis  
2012-2013 Catalog  
Degree Requirements – 124 credits**

<b>YEAR 1- FALL (15 credits)</b>		<b>YEAR 1- SPRING (15 credits)</b>	
PHYS 240 General Physics I (LAC Area 6)	5 credits	PHYS 241 General Physics II	5 credits
MATH 131 <sup>1</sup> Calculus I(LAC Area 2)	4 credits	MATH 132 <sup>1</sup> Calculus II (LAC Area 2)	4 credits
English 122 College Composition (LAC Area 1)	3 credits	Liberal Arts Core <sup>3</sup>	6 credits
Liberal Arts Core <sup>3</sup>	3 credits		
<b>YEAR 2- FALL (17 credits)</b>		<b>YEAR 2-SPRING (16 credits)</b>	
PHYS 340 Mechanics	4 credits	PHYS 320 Mathematical Methods I	3 credits
BIO 110 Principles of Biology	4 credits	PHYS 321 Elementary Modern Physics	4 credits
Liberal Arts Core <sup>3</sup> /Electives	3 credits	Liberal Arts Core <sup>3</sup>	3 credits
Earth Sciences Elective Course	3 credits	STEP 161 Observation and Analysis <sup>4</sup>	2 credits
ENST 225 Energy and the Environment (LAC Area 6)	3 credits	EDF 366 Concepts of Schooling <sup>4</sup>	4 credits
<b><sup>2</sup>For students beginning their 3<sup>rd</sup> year in odd years (2013, 2015, etc.)</b>			
<b>YEAR 3- FALL (15 credits)</b>		<b>YEAR 3- SPRING (16 credits)</b>	
PHYS 347 Optics	4 credits	PHYS 341 Electricity and Magnetism I	4 credits
CHEM 111 Principles of Chemistry I (LAC Area 6)	5 credits	Liberal Arts Core <sup>3</sup>	3 credits
Biology Elective Course	3 credits	EDSE 360 Exceptional Learner <sup>5</sup>	3 credits
AST 301 Classical Astronomy	3 credits	PSY 349 Educational Psychology <sup>5</sup>	3 credits
		STEP 262 Observation & Analysis <sup>5</sup>	2 credits
		SCED 440 Secondary Science Strategies	1 credit
<b>YEAR 4- FALL (16 credits)</b>		<b>YEAR 4- SPRING (14 credits)</b>	
PHYS 345 Quantum Mechanics I	3 credits	STEP 464 Student Teaching <sup>7</sup>	14 credits
CHEM 112 Principles of Chemistry II	5 credits		
EDRD 340 Secondary Content Area Literacy <sup>6</sup>	3 credits		
SCED 441 Secondary Science Methods <sup>6</sup>	3 credits		
STEP 363 Clinical Experience <sup>6</sup>	2 credits		
<b><sup>2</sup>For students beginning their 3<sup>rd</sup> year in even years (2012, 2014, etc.)</b>			
<b>YEAR 3- FALL (14 credits)</b>		<b>YEAR 3- SPRING (16 credits)</b>	
PHYS 345 Quantum Mechanics I	3 credits	PHYS 341 Electricity and Magnetism I	4 credits
AST 301 Classical Astronomy	3 credits	Liberal Arts Core <sup>3</sup>	3 credits
CHEM 111 Principles of Chemistry I (LAC Area 6)	5 credits	EDSE 360 Exceptional Learner <sup>5</sup>	3 credits
Biology Elective Course	3 credits	PSY 349 Educational Psychology <sup>5</sup>	3 credits
		STEP 262 Observation & Analysis <sup>5</sup>	2 credits
		SCED 440 Secondary Science Strategies	1 credit
<b>YEAR 4- FALL (17 credits)</b>		<b>YEAR 4- SPRING (14 credits)</b>	
PHYS 347 Optics	4 credits	STEP 464 Student Teaching <sup>7</sup>	14 credits
EDRD 340 Secondary Content Area Literacy <sup>6</sup>	3 credits		
SCED 441 Secondary Science Methods <sup>6</sup>	3 credits		
STEP 363 Clinical Experience <sup>6</sup>	2 credits		
CHEM 112 Principles of Chemistry II	5 credits		

**Admission Requirement – No separate admission requirement.**

**Minor Required – No Minor required.**

**Contact Information –School of Earth Sciences and Physics, Physics Program**

**Ross Hall Room 0232, 970-351-2961**

**Program Web Page: <http://www.unco.edu/nhs/physics/index.html>**

This worksheet is a recommended schedule to complete your bachelor's degree in 4 years. Every UNC student must meet the following requirements in order to graduate with a bachelor's degree: earn a minimum of 120 semester credit hours; possess a minimum of a 2.00 cumulative grade point average; have at least 40 credit hours in courses designated as Liberal Arts Core; meet all degree requirements in the student's major field of study. Each major and/or emphasis may have additional requirements necessary for graduation. **Students must consult with their major advisor to receive information on any additional graduation requirements.**

### **Notes**

- 1 <sup>1</sup>Students who lack sufficient preparation in mathematics may need to start in MATH 124 (4) -- College Algebra, MATH 125 (3)--Plane Trigonometry, or MATH 127 (4)--Elementary Functions. Please consult your Physics faculty advisor.
- 2 <sup>2</sup>Since some of the major courses are offered every other year, two plans are provided -- one for the student's 3rd year commencing in an even year and one for it commencing in an odd year. If a student starts the physics major in 2012-2013 and stays on track, their 3<sup>rd</sup> year would begin in 2014, an even year.
- 3 <sup>3</sup>To satisfy the Liberal Arts Core requirements using this plan, students need to select courses from Area 7 and/or 8 that also count for Areas 3, 4, or 5.
- 4 <sup>4</sup>Phase I Teaching Courses. EDFE 110 (0 credits) is required the semester before.
- 5 <sup>5</sup>Phase II Teaching Courses.
- 6 <sup>6</sup>Phase III Teaching Courses. EDFE 120 (0 credits) is required the semester before.
- 7 <sup>7</sup>Student Teaching. EDFE 130 (0 credits) is required the semester before.

A 2.0 GPA or better is required in PHYS prefix courses for graduation.

This emphasis gives graduates excellent preparation for graduate school in Astronomy, Astrophysics, and Physics and for employment in industry and research laboratories.