DEGREE WORKSHEET FOR:
BS Physics, Astronomy Emphasis
2012-2013 Catalog
Degree Requirements – 120 credits

YEAR 1- FALL (14 credits)		YEAR 1- SPRING (15 credits)	
PHYS 240 General Physics I (LAC Area 6)	5 credits	PHYS 241 General Physics II	5 credits
MATH 131[1] Calculus I(LAC Area 2)	4 credits	MATH 132[1] Calculus II (LAC Area 2)	4 credits
CHEM 111 Principles of Chemistry I	5 credits	English 122 College Composition (LAC Area 1)	3 credits
		Liberal Arts Core[3]/Electives	3 credits
YEAR 2- FALL (15 credits)		**YEAR 2-SPRING (14 credits)**	
PHYS 340 Mechanics	4 credits	PHYS 341 Electricity and Magnetism	4 credits
MATH 233 Calculus III	4 credits	PHYS 321 Elementary Modern Physics	4 credits
Liberal Arts Core[3]/Electives	7 credits	PHYS 320 Mathematical Methods I	3 credits
		Liberal Arts Core[3]/Elective	3 credits
[2]For students beginning their 3rd year in odd years (2013, 2015, etc.)			
YEAR 3- FALL (15 credits)		**YEAR 3- SPRING (16-18 credits)**	
PHYS 420 Mathematical Methods II	3 credits	Liberal Arts Core[3]/Electives	9 credits
PHYS 347 Optics	4 credits	CS 101 Intro to Computer Science (LAC Elective)	3 credits
Liberal Arts Core[3]/Electives	5 credits	PHYS 370 Research I	1-3 credits
AST 301 Classical Astronomy	3 credits	AST 302 Modern Astronomy	3 credits
YEAR 4- FALL (13-15 credits)		**YEAR 4- SPRING (16 credits)**	
PHYS 345 Quantum Mechanics I	3 credits	PHYS 445 Quantum Mechanics II	3 credits
PHYS 440 Thermodynamics and Statistical Mechanics	4 credits	PHYS 301 Seminar in Physics	1 credit
PHYS 360 Laboratory Physics I	2 credits	PHYS 460 Laboratory Physics II	2 credits
PHYS 470[4] Research II	1-3 credits	PHYS 448 Nuclear and Particle Physics	4 credits
Liberal Arts Core[3]/Electives	3 credits	Liberal Arts Core[3]/Electives	6 credits
[2]For students beginning their 3rd year in even years (2012, 2014, etc.)			
YEAR 3- FALL (15 credits)		**YEAR 3- SPRING (16-18 credits)**	
PHYS 345 Quantum Mechanics I	3 credits	PHYS 445 Quantum Mechanics II	3 credits
PHYS 440 Thermodynamics and Statistical Mechanics	4 credits	PHYS 460 Laboratory Physics II	2 credits
PHYS 360 Laboratory Physics I	2 credits	PHYS 370 Research I	1-3 credits
AST 301 Classical Astronomy	3 credits	PHYS 448 Nuclear and Particle Physics	4 credits
Liberal Arts Core[3]/Electives	3 credits	AST 302 Modern Astronomy	3 credits
		Liberal Arts Core[3]/Electives	3 credits
YEAR 4- FALL (14-16 credits)		**YEAR 4- SPRING (15 credits)**	
PHYS 347 Optics	4 credits	PHYS 301 Seminar in Physics	1 credits
PHYS 420 Mathematical Methods II	3 credits	Liberal Arts Core[3]/Electives	14 credits
PHYS 470[4] Research II	1-3 credits		
CS 101 Intro to Computer Science (LAC Elective)	3 credits		
Liberal Arts Core[3]/Electives	3 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 [1]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 [2]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 3rd year would begin in 2014, an even year.

3 [3]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 [4]HON 451 may be substituted for PHYS 470.

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.