NORTHERN ARIZONA UNIVERSITY
College of Engineering & Natural Sciences

Bachelor of Science
PHYSICS & ASTRONOMY (MERGED MAJOR)

2005-2006 Undergraduate Catalog

8-Term Plan

Freshman Year

1st term				2nd term			
PHY 161	University Physics I	3		PHY 262	University Physics II	3	
PHY 161L	University Physics I Lab	1		PHY 262L	University Physics II Lab	1	
MAT 136	Calculus I (SAS)	4		MAT 137	Calculus II (FNRQ)	4	
Diversity		3		ENG 105	Critical Reading and Writing (FNRQ)	4	
Liberal Studies		3		Liberal Studies		3	
PHY 103	First Year Seminar	1					
	Total units	15			Total units	15	

Sophomore Year

3rd term				4th term			
AST 280	Intro Astrophysics	3		PHY 264	Electronics for Science Students	3	
PHY 263	University Physics III	3		PHY 265	Introduction to Computational Physics	3	
MAT 238	Calculus III	4		PHY 361	Modern Physics	3	
Liberal Studies	*	4		MAT 239	Differential Equations	3	
General Elective		1		Liberal Studies		3	
	Total units	15			Total units	15	

Junior Year

5th term				6th term			
PHY 321	Mechanics I	3		PHY 331	Electricity & Magnetism I	3	
PHY 301	Methods of Analytical Physics **	3		PHY 333W	Advanced Lab	3	
AST 301/301L or AST 391	Observational Astronomy or Astrophysics:Stars	3-4		PHY392 or AST 390	Astrophysics: Galaxies or Galaxies and Cosmology	3	
Liberal Studies		3		Liberal Studies		3	
Diversity		3		General Elective		3	
				Meet with advisor prior to enrolling in 7th term			
	Total units	15 -16			Total units	15	

Senior Year

7th term				8th term			
PHY 471	Quantum Physics	3		PHY 332	Electricity & Magnetism II	3	
Senior Seminar	***	3		Liberal Studies		3	
AST 301/301L or AST 391	Observational Astronomy or Astrophysics:Stars	3-4		Liberal Studies		3	
General Elective		3		General Elective	****	3	
General Elective		2		General Elective	****	3	
Submit graduation application during 7th term							
	Total units	14-15			Total units	15	

PROGRAM INFORMATION
A minimum of 120 units are required for this degree.

*Chemistry is the recommended course for the Lab Science Block

** PHY 401 was replaced by PHY 401. Either course will satisfy the requirement.

*** Senior Seminar includes 3 units from: PHY 498C or 1 unit of PHY 498C and 2 units of PHY 485C.

**** PHY 441 and AST 390 are highly recommended as general electives.

Advanced Physics and Astronomy courses are usually offered only once per year; 300 level astronomy courses are usually offered once every other year. Typical sequencing is as follows:
Every fall semester: AST 280, PHY 301, PHY 321, PHY 471, PHY 498C, plus electives.
Every spring semester: PHY 264, PHY 265, PHY 331, PHY 332, PHY 361, PHY 333W, and PHY 441.
Fall of even-numbered years: AST 301/301L
Fall of odd-numbered years: AST 391
Spring of even-numbered years: AST 392
Spring of odd-numbered years: AST 390

You may not count more than one grade below a C in a physics or astronomy course toward the major requirements for this degree.

GENERAL INFORMATION

- This 8-term plan is to be used in conjunction with the academic catalog and degree audit report.
- Honors students complete different requirements to meet NAU's liberal studies program. Students should consult an Honors Program advisor for complete information on fulfilling Honors Liberal Studies requirements.
- Students should see an academic advisor regularly to confirm their academic progress.
- Students must see an academic advisor before enrollment for the 7th term in preparation for graduation.
- All students are required to complete at least 120 total units which includes:
  - 35 units of liberal studies courses: http://www4.nau.edu/aio/Articulation/LScourselist.htm
  - 6 units of diversity courses: (3 units in Global & 3 units in Ethnic): The diversity requirement may be fulfilled in any part of the program of study.
    http://www4.nau.edu/aio/Articulation/DiversityCourseList/htm
  - 30 units of upper division courses (300-400 level), 18 of these units must be taken at NAU
- English placement: http://www.nau.edu/comp/placement.html
- Math placement: http://www.math.nau.edu/master.html?http://www.math.nau.edu/odin.html

CONTACT INFORMATION

Department of Physics and Astronomy
Building 19, Room 209
Phone: 928-523-2661
Department Chair: David Cornelison
Phone: 928-523-7641
EMAIL: David.Cornelison@nau.edu

Debbie Wildermuth
Academic Services Coordinator
College of Engineering and Natural Sciences
Building 21, Room 102
Phone: 928-523-3842
EMAIL: Debbie.Wildermuth@nau.edu