PHYSICS (BS) - METEOROLOGY DOUBLE MAJOR

Degree Requirements

Code	Title	Hours
General Education Requirements		
https://bulletin.southalabama.edu/programs-az/arts-sciences/#generaleducationtext		53-57
Major Requirements		
Physics (BS) - Meteorology Double Major Core		*34*
A. Complete the following:		
PH 107	Contemporary Topics in Physics	1
PH 201	Calculus-Based Physics I	4
PH 202	Calculus-Based Physics II	4
PH 303	Modern Physics	4
PH 348	Electricity and Magnetism I	3
PH 366	Physical Mechanics I	3
PH 367	Physical Mechanics II	3
PH 385	Experimental Physics - W	3
PH 411	Computational Methods in Phys	3
PH 448	Elementary Quantum Mechanics I	3
PH 463	Thermodynamics-Stat Mechanics	3
B. Complete the following Meteorology courses:		33
MET 140	Introduction to Meteorology	
MET 140L	Intro to Meteorology Lab	
MET 353	General Meteorology	
MET 354	Dynamic Meteorology I	
MET 355	Dynamic Meteorology II	
MET 356	Physical Meteorology	
MET 357	Meteorological Instrumentation	
MET 443	Climatology - W	
MET 454	Synoptic Meteorology I	
MET 455	Synoptic Meteorology II	
MET 456	Applied Climatology - W	
C. Complete the following STEM courses:		
CH 131 & 131L	General Chemistry I and General Chemistry I Lab	4
CH 132 & 132L	General Chemistry II and General Chemistry II Lab	4
CPE 260	Intro to C++ Programming	3
MA 125	Calculus I	4
MA 126	Calculus II	4
MA 227	Calculus III	4
MA 238	Differential Equations I	3
ST 315	Applied Probability-Statistics	3
D. This course is highly recommended as electives for students planning to find employment with the National Weather Service:		
MET 492	Seminar - (see footnote table below (p. 1)) [1]	
Minor Requirements		
A minor is not required for this degree program		0
A MINIMUM OF 120 HOURS IS REQUIRED FOR A DEGREE		**120**

All undergraduates must complete two designated writing credit (W) courses, at least one must be in major or minor.

Footnote

[1] Recommended Courses

Notes:

MET 456 (W) and MET 356 are only offered in the summer.

With the exception of PH 303 and PH 448, which are offered every year, all upper division Physics courses are offered every other year.

All Physics majors will be required to take an assessment exit exam, at no cost to the student, and an exit interview before graduation as directed by the department.

General Comments:

- PH 114 and PH 115 with either PH 201 or PH 202 may be substituted for PH 201 and PH 202 with the prior approval of the physics department chair.
- The sequences PH 114/PH 115 and PH 201/PH 202 may not both be taken for credit.

Additional Information

The Meteorology program, with the Department of Earth Sciences, and the Department of Physics jointly offer a double major in Meteorology and Physics. This curriculum is intended for students who anticipate graduate study in Atmospheric Science, yet wish a very strong background in Physics. As constructed, this curriculum will require the student to complete an extra seventeen (17) hours over the maximum 120 hours required for either major alone. The changes from the current Option B: General Physics curriculum for a student intending to pursue graduate study in Meteorology include: removal of six (6) Physics Elective hours, two courses, and the addition of PH 367. Requirements removed from the regular Meteorology curriculum are the completion of Meteorology electives and the satisfaction of one of the four Meteorology Tracks; the Physics Major will replace the normal requirements for a Meteorology track and the electives. Only Meteorology-Physics double majors may have these track and elective requirements waived. The double major satisfies the minor requirement for the College of Arts and Sciences.

Graduation Plan

(120 Total Hours)

Course	Title	Hours
First Year		
Fall		
CAS 100	First Yr Exp -	2
PH 107	Contemporary Topics in Physics	1
CA 110	Public Speaking	3
MA 125	Calculus I	4
EH 101	English Composition I	3
Arts/Humanities	Area II [1]	3
	Hours	**16**

Spring		
EH 102	English Composition II	3
PH 201 & 201L	Calculus-Based Physics I and Calculus-Based Physics I Lab	4
MA 126	Calculus II	4
MET 140	Introduction to Meteorology	3
MET 140L	Intro to Meteorology Lab	1
	Hours	**15**
Second Year		
Fall		
History	Area IV, A [1]	3
MA 227	Calculus III	4
PH 202 & 202L	Calculus-Based Physics II and Calculus-Based Physics II Lab	4
MET 353	General Meteorology	4
Language	Area V, A [1]	3
	Hours	**18**
Spring		
Social/Behavioral	Area V [1]	3
Language	Area, A [1]	3
PH 303 & 303L	Modern Physics and Modern Physics Lab	4
MET 443	Climatology - W	3
MA 238	Differential Equations I	3
	Hours	**16**
Third Year		
Fall		
PH 366	Physical Mechanics I	3
MET 354	Dynamic Meteorology I	3
ST 315	Applied Probability-Statistics	3
CPE 260	Intro to C++ Programming	3
Arts/Humanities	Area II [1]	3
	Hours	**15**
Spring		
Humanities/Fine Arts	Area II [1]	3
MET 355	Dynamic Meteorology II	3
MET 357	Meteorological Instrumentation	2
PH 367	Physical Mechanics II	3
PH 411	Computational Methods in Phys	3
	Hours	**14**
Fourth Year		
Fall		
PH 348	Electricity and Magnetism I	3
MET 454	Synoptic Meteorology I	6
CH 131 & 131L	General Chemistry I and General Chemistry I Lab	4
Social/Behavioral	Area IV [1]	3
	Hours	**16**
Spring		
PH 463	Thermodynamics-Stat Mechanics	3
MET 455	Synoptic Meteorology II	6
CH 132 & 132L	General Chemistry II and General Chemistry II Lab	4
Social/Behavioral	Area IV [1]	3
	Hours	**16**
Fifth Year		
Fall		
PH 348	Electricity and Magnetism I	3
PH 385	Experimental Physics - W	3
Art/Humanities	Area II [1]	3
	Hours	**9**
Summer		
Before 4th or 5th Year		
MET 356	Physical Meteorology	3
MET 456	Applied Climatology - W	3
	Hours	**6**
	Total Hours	**141**

[1] See General Education Requirements