

Physics (BS) - Graduate School Prep

Degree Requirements

Majors in Arts and Sciences may be completed with a minimum of 120 semester hours unless designated otherwise. At least 30 hours of course work, which represents 25% of the required 120 hours, must be at the upper division level in order to fulfill the University's residency requirement. At least 15 of the 30 upper-division hours must be in the major or concentration area. An overall grade-point-average (GPA) of 2.0 is required for graduation. In addition, a minimum GPA of 2.0 is required in the student's major or concentration area.

Grad School Prep: Physics Graduate School Preparation is designed for a student anticipating graduate study in Physics. This option gives the student a solid foundation in basic Physics.

Physics Graduate School Preparation course requirements include:

PH 107

PH 201

PH 202

PH 303

PH 348

PH 349

PH 366

PH 367

PH 385(W)

PH 411

PH 448

PH 449

PH 463

Six (6) hours of Physics electives must be taken from among the following

PH 301

PH 311

PH 346

PH 354

PH 390

PH 494

PH 499

The following additional technical courses are required:

CH 131

CH 132

CIS 210 or CIS 227

In addition, the following math courses are prerequisites for upper division Physics courses:

MA 125

MA 126

MA 227

MA 238

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 test, at no cost to the student, and an exit interview before graduation as directed by the department.

General Education Requirements For Physics Majors (All Options)

Areas I, II, and IV of the General Education Requirements for Physics are specified in the College of Arts and Sciences section. Note that Area III requirements (Mathematics and Natural Sciences) are fulfilled by the major requirements specified above.

General Comments

- A sample program may be found at <http://www.southalabama.edu/departments/academicadvising/advisingguides/artsandsciences/gradschoolphysicsguide.html>
- The sequences PH 114, PH 115 and PH 201, PH 202 may not both be taken for credit. 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.

Required Courses for Graduate School Preparation Option (120 Hours)

Totals:	Hours	Physics Electives
Physics	46	PH 301
Mathematics	15	PH 311
Chemistry	8	PH 346
CAS	2	PH 354
Art/Humanities	12	PH 390
Social Sciences	12	PH 494
Communication	9	PH 499
Language	6	
CIS	3	
Electives	7	
Total	120	

Department Information

Department of Physics website
<https://www.southalabama.edu/physics/>

The curriculum in the Department of Physics serves three groups of students: those preparing for careers in physics, those pursuing professional fields such as medicine and engineering, and those electing physics and astronomy as part of the natural science requirement for Bachelor of Arts or Bachelor of Science Degrees. The degree program in physics allows for flexibility to

the extent that the serious student can select related courses in biology, chemistry, geology, computer science, and engineering to prepare for a career in such interdisciplinary areas as biophysics, geophysics, oceanography, and environmental science. Three options for a Bachelor of Science degree in Physics are offered. One option (the Premedical Option) is for those students pursuing medicine as a career. Links to sample programs and requirements for each option are given in the degree General Comments sections of each Area of Study. Students pursuing a degree in Physics also must have a minor in another discipline. In addition, the Department of Physics offers a double major with the Meteorology program within the Department of Earth Sciences.

All first-time freshmen must successfully complete CAS 100: First Year Experience, as a degree requirement. Students must enroll during their first term at USA, except for summer-entry students who must enroll in the fall semester following entry.

The Physics Pre-Medical Option requires a minimum of 129 hours, while the other Physics options require a minimum of 120 hours.