

Bachelor of Science in Physics
Option IV: Space Sciences
2012-14 Catalog (Expires August 2020)

University Core Curriculum

First-Year Signature Course: UGS 302 or 303 ____

English: RHE 306 ____

Humanities: E 316K ____

American & Texas Government: 6 hrs from approved core list
____ + ____

American History: 6 hrs from approved core list
____ + ____

Social and Behavioral Science: 3 hrs from approved core list ____

Mathematics: 3 hrs from approved core list: ____ [M 408N or 408C]

Science and Technology Part I: 6 hrs in a single subject from approved core list: ____ + ____ [PHY 301 + 316]

Science and Technology Part II: 3 hrs in a subject different than Part I, chosen from approved core list: ____ [CH 302]

Visual & Performing Arts: 3 hrs from approved core list ____

Note that no single course may be used to fulfill two core areas simultaneously. In most cases, students may satisfy both a *core requirement* and a *major requirement* with a single course. Plan II students may have additional options for some core requirements.

Additional General Education Requirements

Two Writing Flags (must include a course that is not used to meet a core requirement and a course that is upper-division): ____ + ____

Writing Flag courses may satisfy other degree requirements.

Foreign Language, Option A, B, or C: _____ + _____

A) Two semesters in a single language or attainment of second-semester proficiency in one language:

B) First semester-level proficiency in a foreign language and a three-hour course in the culture of the same language:

C) Two three-hour culture courses chosen from one foreign culture category from and approved list available in the CNS Dean's office and the college advising centers.

Mathematics and Introductory Science, with grades of C- or better

Calculus: M 408C ____ + 408D ____ (or equivalent sequence)

Physics: PHY 301 ____, PHY 101L ____ + PHY 316 ____, PHY 116L ____ + PHY 315 ____, PHY 115L ____

Mathematics: M 427K ____ + 427L ____

6 additional hours of upper-division mathematics: ____ + ____ (M 340L, 361, and 362K are recommended)

Chemistry: 302 or 302H ____

Six hours chosen from one of the following areas: Biology, Geological Sciences, or Astronomy: ____ + ____

Note: A course may not be used to fulfill this requirement if it cannot be counted toward major requirements in the department that offers it.

Physics Requirements with grades of C- or better

Complete the following courses:

PHY 329, Intro to Computational Physics: ____

PHY 336K, Classical Dynamics: ____

PHY 352K, Classical Electrodynamics: ____

PHY 353L, Modern Physics Laboratory: ____

PHY 355, Modern Physics and Thermodynamics: ____

PHY 362K, Quantum Physics II: Atoms and Molecules: ____

PHY 369, Thermodynamics and Statistical Mechanics: ____

PHY 373, Quantum Physics I: Foundations: ____

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Aerospace Engineering with grades of C- or better

Complete one of the following: _____ + _____ + _____ + _____ + _____

- A. 15 hours of upper-division coursework in Aerospace Engineering
- B. 13 hours of upper-division coursework in Aerospace Engineering + 3 hours of additional upper-division Physics

Enough Additional Elective Hours to Reach a Total of 126 Hours (including 36 Upper-division Hours)

Note: Only mathematics courses at the level of calculus and above may count toward the total number of hours required for the degree. The following courses will not count toward the degree: The following Mathematics courses will not count toward this degree: 301, 302, 303D, 303F, 403K, 403L, 304E, 305E, 305G (or 405G or 505G), 310P, 316K, and 316L.

Minimum Grade Point Average Requirements

2.0 grade point average in all mathematics and science courses required by degree*: _____

2.0 grade point average in all courses taken at the University of Texas at Austin: _____

* Required Mathematics and Science courses may include: ACF, AST, BIO, CH, CS, EVS, GEO, HDF, HE, M, NEU, NSC, NTR, PHY, SSB, SSC, TXA, and UTS-Natural Sciences.

Total Hours and Residency Requirements

126 semester hours: _____

36 upper-division hours: _____

60 hours in residence: _____

21 upper-division hours in residence (including 12 hours of Physics): _____

24 of the last 30 hours in residence: _____

No more than 16 hours of electives may be taken Pass/Fail. No more than 3 three-hour courses in Air Force Science, Military Science, and Naval Science may be counted toward the degree. The following courses will not count toward this degree: M 301, KIN 119, or PED one-hour activity courses. Please check course descriptions of lower-division science courses not required for majors in the same field of study to see if they can or cannot count toward this degree.

Students may earn only one BA and one BS in Physics degree, though they may earn multiple majors. Students completing an additional degree must complete 24 hours in addition to those counted toward the bachelor's degree that requires the higher number of credit hours.