## Bachelor of Science in Physics Option IV: Space Sciences 2014-16 Catalog (Expires August 2022)

| University Core Curriculum   | Lacking  |
|--|----------|
| First-Year Signature Course: UGS 302 or 303  |          |
| English: RHE 306   |          |
| Humanities: One course chosen from E 316K (if taken prior to Fall 2014), 316L, 316M, 316N, 316P  |          |
| 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 408C or M 408N]   |          |
| 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 from approved list in a subject other than the one chosen for Part I: [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.  |          |
|  |          |
|  | 7 1.     |
| Additional General Education Requirements  | Lacking  |
| Two Writing Flags (must include a course that is not used to meet a core requirement and a course that is upper-division): +               |          |
| Quantitative Reasoning Flag Course:  |          |
| Writing and Quantitative Reasoning 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 area.                |          |
| C. Two three-hour culture courses chosen from one foreign culture area from an approved list available in the CNS Dean's office            |          |
| and the college advising centers.  |          |
|  |          |
| Mathematics and Introductory Science with grades of C- or better   | Lacking  |
| Calculus: M 408C + 408D OR M 408N + 408S + 408M  | Zueming  |
| Physics: PHY 301 + 101L + 316 + 116L + 315 + 115L  |          |
| Mathematics: M 427K + 427L   |          |
|  |          |
| 6 additional hours of upper-division mathematics: + (M 340L, 361, and 362K are recommended)  |          |
| Chemistry: CH 302 or 302H  |          |
| 6 hours chosen from one of the following areas: Astronomy, Biology, or Geological Sciences +   |          |
| 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   | Lacking  |
| Complete all of the following courses or their equivalents:  |          |
| PHY 329, Intro to Computational Physics:   |          |
| PHY 336K, Classical Dynamics I:  |          |
| PHY 352K, Classical Electrodynamics:   |          |
| PHY 353L, Modern Physics Laboratory:   |          |
| PHY 355, Modern Physics and Thermodynamics:  |          |
| PHY 362K, Quantum Physics II: Atoms and Molecules:   | <u> </u> |
| PHY 369, Thermodynamics and Statistical Mechanics:   |          |
| PHY 373, Quantum Physics I: Foundations:   |          |
|  |          |
| Aerospace Engineering with grades of C- or better  | Lacking  |
| 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                           |          |
|  |          |

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| Enough Additional Elective Hours to Reach a Total of 126 Hours (including 36 upper-division Hours)  | Lacking |
|---|---------|
| 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: M 301, 302, 303D, 303F, 403K, 403L, 304E, 305E, 305G (or 405G or 505G), 310P, 316K, and 316L: |         |

| Minimum Grade Point Average Requirements   | Lacking |
|--|---------|
| 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, BCH, BIO, CH, CS, EVS, GEO, HDF, HE, M, NEU, NSC, NTR, |         |
| PBH, PHY, SSC, SDS, TXA, and UTS-Natural Sciences.   |         |

| Total Hours and Residency Requirements  | Lacking |
|---|---------|
| 126 semester hours:   |         |
| 36 upper-division hours:  |         |
| 21 upper-division hours in residence, including at least 12 hours of PHY:   |         |
| 60 hours in residence:  |         |
| No more than 6 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. |         |
| A student may not earn more than one Bachelor of Arts or Bachelor of Science and Arts degree from the University. A student may earn only one undergraduate degree in a particular field of study from the College of Natural Sciences. A student who holds a Bachelor of Arts or a Bachelor of Science and Arts degree from the university may earn a second major designation in another field of study that will appear on the University transcript.                        |         |
| The title of the degree appears on the diploma, but the major does not. The title of the degree, the major, and the transcript-recognized certificate appear on the official transcript.  |         |

CNS Student Records August 2014