

Bachelor of Science in Mathematics
Option III: Mathematical Sciences
Specialization in Scientific Computation
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 ____ [ECO 304K or 304L]

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: ____ + ____

Science and Technology Part II: 3 hrs from a subject other than the one chosen for Part I from approved core list: ____

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 approved list available in the CNS Dean's office and the college advising centers.

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

Mathematics: M 408C ____ + M 408D ____ **OR** M 408N ____ + M 408S ____ + M 408M ____

8 hours in one of the following areas: Astronomy, Biology, Chemistry, Geological Sciences or Physics ____ + ____

[may satisfy Science and Technology Part I or Part II if courses are chosen from S&T Part I or Part II list]

Specialization in Scientific Computation with grades of C- or better

Complete one of the following sequences:

A. Statistics and Scientific Computation: 318 ____ + 222 ____

B. Computer Science: 312 ____ + 314 ____

C. Computer Science: 303E ____ + 313E ____

32 hours of upper division coursework in mathematics and supporting areas consisting of:

Mathematics 341 or 340L: ____

(M 340L may count if already completed when entering mathematics major; 340L is restricted to non-mathematics majors)

Mathematics: 427K ____ + 348 + ____ 362K ____ + 368K ____

Mathematics 361K or 365C: ____

13 hours of additional coursework chosen from: M 325K or 328K, 427L, 343K or 373K, 343L, 346, 358K, 361, 365D, 372K, 374M, 376C, 378K; and 6 hours of upper-division coursework from the Elements of Computing Certificate or the Certificate in Scientific Computation:

____ + ____ + ____ + ____ + ____

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Note: Courses should be chosen in consultation with the specialization advisor to form a coherent program consistent with the student's background and goals.

Enough Additional Coursework to Reach a Total of 126 Hours (including 42 Upper-division Hours)

Upper-division hours must include 6 upper-division hours, excluding the following: AST, BIO, CH, GEO, M, PHY, PHL courses in logic, CS courses in discrete mathematics, courses in the Cockrell School of Engineering, and courses counted within the 32 upper-division hours of mathematics and support courses. **6 Upper-division hours outside of these restrictions are:** _____ + _____

Additional elective hours to reach degree total: _____

Note: 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: _____

60 hours in residence: _____

18 hours of math coursework in residence: _____

42 upper-division hours (21 in residence): _____

24 of the last 30 hours in residence: _____

No more than 16 hours of electives may be taken Pass/Fail. No more than 42 hours in a single field of study may be counted toward the degree. 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: some Elements of Computing courses, 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 your degree. Students may earn only one BA 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.