Bachelor of Science in Mathematics
Option III: Mathematical Sciences
Specialization in Scientific Computation
2010-12 Catalog (Expires August 2018)

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: _____ + _____

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

Substantial Writing Components and/or Writing Flags (including a course that is not used to meet a core requirement and a course that is upper-division): _____ + _____

Substantial Writing Components and Writing Flags may satisfy other specific degree requirements

Foreign Language: Courses 506 and 507 (or the equivalent) in a single foreign language, and a three-semester-hour course in the same language for which 507 is a prerequisite. _____ + _____ + _____

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

Mathematics: M 408C _____ + M 408D _____ **OR** M 408N _____ + M 408S _____+ M 408M _____
or an equivalent calculus sequence

Computer Science: CS 307 _____ + SSC 222 _____ **OR** CS 307 _____ + CS 315 _____

Natural Science: 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]

Option Requirements with grades of C- or better

32 hours of upper division coursework in mathematics and related areas:

Mathematics: M 341 (or 340L if already taken; M 340L is restricted to non-mathematics majors): _____
Mathematics: M 427K_____, 348_____, 362K_____, and 368K _____
Mathematics: M 361K **or** 365C: _____,

Thirteen additional upper-division hours chosen from the following:

Elements of Computing: C S 324E, 326E, 327E, and 329E. *
* A maximum of 6 hours of Elements of Computing courses may count toward the 32 upper-division hours. CS 323E may not count.

Mathematics: M 325K or 328K (only one, not both), 427L, 343K or 373K (only one, not both), 343L, 346, 358K, 361, 365D, 372K, 474M, 376C, and 378K.

_____ + _____ + _____ + _____ + _____

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

NOTE: Students who complete this specialization may simultaneously fulfill some of the requirements of the transcript-recognized Elements in Computing Certificate or the Certificate in Scientific Computation.

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

_____ _____ _____ _____ _____ _____ _____ _____ _____

6 upper division semester hours outside of both mathematics and subject areas listed in "Introductory Mathematics and Science Courses" are needed. Philosophy courses in logic, computer science courses in discrete mathematics, and engineering courses may not be used. Courses used to satisfy the 32 semester hours of upper-division coursework in mathematics and supporting areas may not count for this requirement.

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, NSC, NTR, PHY, SSC, TXA, and UTS-Natural Sciences.

Total Hours and Residency Requirements

126 semester hours: _____
60 hours in residence: _____
No more than 16 hours of electives may be taken Pass/Fail.
42 upper-division hours _____
24 of the last 30 hours in residence: _____
18 hours of math coursework in residence: _____

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.

Additional Information

The following courses will not count toward this degree: M 301, M 304E, M 403K, M 403L, M 305G, M 505G, M 316K, M 316L, M 360K, M 378S (or equivalent courses), KIN 119 or PED one-hour activity courses. No more than 12 semester hours of bible coursework may be counted toward the degree. See catalog for restrictions about using ROTC coursework.

CNS Academic Records October 2011