

# Bachelor of Science in Chemistry; Option II: Computation

## 2012-2014 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 408C or M 408N]

**Science and Technology Part I:** 6 hrs in a single subject from approved core list: \_\_\_\_ + \_\_\_\_ [CH 301 or 301H + CH 302 or 302H]

**Science and Technology Part II:** 3 hrs from approved list in a subject other than the one chosen for Part I: \_\_\_\_ [PHY 317K, 301, or 303K]

**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.

### Mathematics and Physics With Grades of C- or Better

**Mathematics:** M 408N \_\_\_\_ + 408S \_\_\_\_ + 408M \_\_\_\_ OR M 408C \_\_\_\_ + 408D \_\_\_\_

**Statistics and Scientific Computation 329C or Mathematics 340L or 341:** \_\_\_\_\_

**Physics, 8 hours, chosen from the following sequences:**

1) PHY 317K \_\_\_\_ + 117M \_\_\_\_ AND 317L \_\_\_\_ + 117N \_\_\_\_ OR

2) PHY 301 \_\_\_\_ + 101L \_\_\_\_ AND 316 \_\_\_\_ + 116L \_\_\_\_ OR

3) PHY 303K \_\_\_\_ + 103M \_\_\_\_ AND 303L \_\_\_\_ + 103N \_\_\_\_

### Computation Requirements with Grades of C- or Better

**Statistics and Scientific Computation 222:** \_\_\_\_\_

**Computation:** CH 368 (Topic: Computational Chemistry) \_\_\_\_

**Complete 3 courses, including courses from at least 2 of the following areas:** \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_

1. Numerical Methods: CS 323E, 323H, 367; M 348; SSC 335; and CHE 348.
2. Statistical Methods: M 358K, 378K; and BME 335.
3. Other Computing Topics: CS 324E, 327E, 329E (approved topics), 377; M 346, 362M, 368K, 372K, 376C; SSC 329D, 374C, 374D, 374E; and ME 367S.

**Note: Students who complete Option II may simultaneously fulfill some of the requirements of the Certificate in Scientific Computation.**

# Bachelor of Science in Chemistry; Option II: Computation 2012-2014 Catalog (Expires August 2020)

## Chemistry with Grades of C- or Better

**General Chemistry:** CH 301 or 301H \_\_\_\_ + 302 or 302H \_\_\_\_ + 317 \_\_\_\_  
**Organic Chemistry:** CH 328M \_\_\_\_ + 128K \_\_\_\_ + 328N \_\_\_\_ + 128L \_\_\_\_ **OR** CH 320M \_\_\_\_ + 320N \_\_\_\_ + 220C \_\_\_\_  
**Biochemistry:** CH 339K or 369 \_\_\_\_  
**Physical Chemistry:** CH 353 \_\_\_\_ + 153K \_\_\_\_ + 354 or 354L \_\_\_\_ + 154K \_\_\_\_  
**Analytical Chemistry:** CH 456 (offered in Fall only) \_\_\_\_ + 376K (offered in Spring only) \_\_\_\_  
**Inorganic Chemistry:** CH 431 \_\_\_\_

## Chemistry Laboratory with Grades of C- or Better

Three hours of Upper-Division Chemistry Laboratory, chosen from: \_\_\_\_

CH 341: Special Topics in Laboratory Chemistry  
CH 369K: Techniques of Research  
CH 369T: Biotechnology Laboratory (additional prerequisites may be needed to qualify for consent of instructor prerequisite)  
CH 371K: Science Outreach in Elementary Schools

## Enough Additional Elective Hours to Reach a Total of 127 Hours (including 36 Upper Division Hours)

\_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_

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

## Total Hours and Residency Requirements

127 semester hours: \_\_\_\_\_

60 hours in residence: \_\_\_\_\_

36 upper-division hours total: \_\_\_\_\_

24 of the last 30 hours in residence: \_\_\_\_\_

21 upper-division hours in residence (including 12 in chemistry): \_\_\_\_\_

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.

### Chemistry/Biochemistry Undergraduate Advising Center

The Chemistry/Biochemistry Undergraduate Advising Office is located in Welch Hall (WEL) Room 2.216. Advising is usually offered by appointment from 9:00am - 12noon and from 1:30pm - 4:30pm. For information call 471-3097. You can expect to receive the following assistance: information about degree requirements and academic policies and procedures; advice about course selection; assessment of your academic progress; and assistance with registration problems, when appropriate.

### Student Responsibility

While University faculty and staff members give students academic advice and assistance, each student is expected to take responsibility for his or her education and personal development. The student must know and abide by the academic and disciplinary policies given in the *Undergraduate Catalog* and in the *General Information* catalog, including rules governing quantity of work, the standard of work required to continue in the University, scholastic probation and dismissal, and enforced withdrawal. The student must also know and meet the requirements of his or her degree program, including the University's basic education requirements, must enroll in courses appropriate to the program, must meet prerequisites and take courses in the proper sequence to ensure orderly and timely progress, and must seek advice about degree requirements and other University policies when necessary.

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