

# Bachelor of Science in Biochemistry; Option II: Computation

## 2010-2012 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 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 a subject other than the one chosen for Part I from approved core list: \_\_\_\_ [BIO 311C]

**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, 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 Physics with Grades of C- or Better

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

**One of the Following:** M 340L, 341; or SSC 329C: \_\_\_\_

**8 hours: chosen from the following sequences (lecture and accompanying lab):**

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

**SSC 222:** \_\_\_\_

**9 hours from the lists below, including courses from 2 different lists:** \_\_\_\_ + \_\_\_\_ + \_\_\_\_

**Numerical Methods:** CE 379K, CHE 348, M 348, CS 323E, CS 323H, CS 367, SSC 335

**Statistical Methods:** M 358K, M 378K, BME 335

**Other Computing Topics:** CS 324E, CS 327E, CS 329E, CS 377, M 326, M 362M, M 368K, M 372K, M 376C, M 367S, SSC 329D, SSC 374C, SSC 374D, SSC 374E

### Chemistry with Grades of C- or Better (42 hours minimum)

**Entry-level Chemistry:** CH 301 or 301H \_\_\_\_ + 302 or 302H \_\_\_\_

**Introductory Laboratory:** CH 317 or 204 \_\_\_\_

**Organic Chemistry (8 hours, chosen from one the following sequences):**

CH 318M \_\_\_\_ + 118K \_\_\_\_ + 318N \_\_\_\_ + 118L \_\_\_\_ OR CH 310M \_\_\_\_ + 310N \_\_\_\_ + 210C \_\_\_\_

**Biochemistry:** CH 339K \_\_\_\_ + 339L \_\_\_\_ + 369L \_\_\_\_ + 370 \_\_\_\_

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**Physical Chemistry:** CH 353M \_\_\_\_\_

**Analytical Chemistry:** CH 455 \_\_\_\_\_

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

**Three hours of upper-division Chemistry laboratory, chosen from:** \_\_\_\_\_

CH 431 Inorganic Chemistry

CH 376K Advanced Analytical Chemistry

CH 369T Biotechnology Laboratory

CH 341 Special Topics in Laboratory Chemistry

CH 369K Techniques of Research

CH 371K Science Outreach in Elementary Schools

**Biology with Grades of C- or Better**

**Entry-level Biology:** BIO 311C \_\_\_\_\_ + 311D \_\_\_\_\_ OR BIO 315H \_\_\_\_\_

**Genetics:** BIO 325 or 325H (prerequisite BIO 315H) \_\_\_\_\_

**BIO:** 9 additional hours from lists, including 3 hours each from Physiology and Cellular & Developmental Biology: \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_

**\*Physiology:**

Biology 328 Introductory Plant Physiology  
Biology 339 Metab & Biochem of Microorganisms  
Biology 345 Cell Physiology  
Biology 361T Comparative Animal Physiology  
Biology 365R Vertebrate Neurobiology  
or  
Biology 371M Neuronal Basis of Brain and Behavior  
Biology 365S Vertebrate Systems Physiology

**Cellular & Developmental Biology:**

Biology 320 Cell Biology  
Biology 326R General Micro: Cell Structure/Genetics  
Biology 126L General Microbiology Lab  
Biology 330 Animal Virology  
Biology 331L Laboratory Studies in Molecular Biology  
Biology 344 Molecular Biology  
Biology 347 Biology/Genetics of Immune Disorders  
Biology 349 Developmental Biology  
Biology 360K Immunology

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

**Total Hours and Residency Requirements**

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

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

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

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.

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

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

No more than 16 hours of electives may be taken Pass/Fail.

### 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;
- 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.

CNS Academic Records July 2010