BS in Chemistry
American Chemical Society Accredited

2015 – 2016 Catalog
Total Credit Hours Required: 120
Advanced Credit Hours Required: 36 (3000 level or above)

Required Chemistry Courses

**General Chemistry**
- 1441 General Chemistry I and Lab
- 1442 General Chemistry II and Lab
  (Prerequisite: CHEM 1441)

**Organic Chemistry**
- 2321 Organic Chemistry I (Prerequisite: CHEM 1442)
- 2181 Organic Chemistry I Lab (Corequisite: CHEM 2321)
- 2322 Organic Chemistry II (Prerequisite: CHEM 2321)
- 2182 Organic Chemistry II Lab (Corequisite: CHEM 2322)

**Quantitative Chemistry**
- 2335 Quantitative Chemistry (Prerequisite: CHEM 1442)
- 2285 Quantitative Chemistry Lab (Corequisite: CHEM 2335)

**Physical Chemistry**
- 3321 Physical Chemistry I (Prerequisite: CHEM 2335, 8 hours physics, MATH 2326)
  (Concurrent: MATH 3319 encouraged)
- 3181 Physical Chemistry I Lab (Corequisite: CHEM 3321)
- 3322 Physical Chemistry II (Prerequisite: CHEM 2335, 8 hours of physics, MATH 2326)
- 3182 Physical Chemistry II Lab
  (Corequisite: CHEM 3322)

**Inorganic Chemistry**
- 3317 Inorganic Chemistry I
  (Pre/Corequisite: CHEM 2322)
- 4318 Inorganic Chemistry II
  (Prerequisite: CHEM 2322)

**Biochemistry**
- 4311 General Biochemistry I
  (Prerequisite: CHEM 2322)

**Other Chemistry**
- 4101 Seminar in Chemistry
  (Prerequisite: Senior standing in chemistry)
- 4346 Advanced Synthetic Methods
  (Prerequisite: CHEM 2182, 2322, 3317/4318)
- 4461 Instrumental Analysis
  (Prerequisite: CHEM 2335, 2285)
- 3 hours of 3000 level or above (must be pre-approved)

Other Required Courses

**English**
- 1301 Critical Thinking, Reading, and Writing I
- 1302 Critical Thinking, Reading, and Writing II

**Language, Philosophy, and Culture**
- 3 hours of an approved course (see Catalog)

**Social and Behavioral Sciences**
- 3 hours of an approved course (see Catalog)

**Creative Arts**
- 3 hours of an approved course (see Catalog)

**Political Science**
- 2311 Government of the United States
- 2312 State and Local Government

**History**
- 1311 History of the United States (→1865)
- 1312 History of the United States (1865→)

**Foundational Component Area**
- 3 hours of an approved course (see Catalog)

**Computer Competency**
- “C” or above in CHEM 2335 or CSE 1301
  or passing score on Computer Skills Placement Test

**Mathematics**
- 1426 Calculus I
- 2425 Calculus II
- 2326 Calculus III
- 3319 Differential Equations (3318 is also accepted)

**Physics**
- 1443 General Technical Physics I
  (Prerequisite: MATH 1426)
- 1444 General Technical Physics II
  (Pre/Corequisite: MATH 2425)
- 3 hours at 3000 level or above (3313 recommended)

**Other Natural Science**
- 6-8 hours of biology or 6-8 hours of geology

**Electives**
- Sufficient to reach 120 total credit hours
- Sufficient to reach 36 advanced hours

Undergraduate Advisor
Charu Gupta
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E-mail: cgupta@uta.edu

Department of Chemistry and Biochemistry
Chemistry and Physics Building Room 130
Phone: (817) 272 - 3171
Fax: (817) 272 - 3808
Title: Math, Physics, and Chemistry Pre- and Corequisites Flow Chart (grade of “C” or better is required to meet prerequisites)

**Suggested Course Sequence**

<table>
<thead>
<tr>
<th>First Year</th>
<th>Fall - 15 credit hours</th>
<th>Spring – 15 credit hours</th>
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<tbody>
<tr>
<td></td>
<td>CHEM 1441</td>
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<td>MATH 1426</td>
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<td>ENGL 1301</td>
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<td>BIOL 1441 or GEOL 1425</td>
<td>BIOL 1442 or GEOL 1426</td>
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<tr>
<th>Second Year</th>
<th>Fall – 14 credit hours</th>
<th>Spring – 16 credit hours</th>
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<tr>
<td></td>
<td>MATH 2326</td>
<td>MATH 3318 or 3319</td>
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<td>PHYS 1443</td>
<td>PHYS 1444</td>
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<td></td>
<td>Language, Philosophy, and Culture</td>
<td>CHEM 2335 and 2285</td>
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<td>CHEM 2321 and 2181</td>
<td>CHEM 2322 and 2182</td>
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<th>Third Year</th>
<th>Fall – 16 credit hours</th>
<th>Spring – 16 credit hours</th>
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<tr>
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<td>CHEM 3321 and 3181</td>
<td>CHEM 3322 and 3182</td>
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<td>CHEM 3317</td>
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<td>PHYS 3313</td>
<td>Creative Arts</td>
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<td>POLS 2311</td>
<td>POLS 2312</td>
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<td></td>
<td>Social and Behavioral Sciences</td>
<td>Foundational Component Area</td>
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<th>Fourth Year</th>
<th>Fall – 14 credit hours</th>
<th>Spring – 18 credit hours</th>
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<tr>
<td></td>
<td>CHEM 4311</td>
<td>CHEM 4346</td>
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<td>CHEM 4101</td>
<td>CHEM 3000 or 4000</td>
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<td>CHEM 4461</td>
<td>HIST 1312</td>
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<td>HIST 1311</td>
<td>Computer Competency</td>
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<td>Electives</td>
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*Minimum GPA Required: 2.25 in CHEM, 2.25 in COS, and 2.25 Overall.

**NOTE:** For a thorough explanation of degree requirements please consult the Undergraduate Catalog.