

# Bachelor of Science in Chemistry to Master of Science in Chemistry Fast-Track

## About This Program

The Bachelor of Science in Chemistry to Master of Science in Chemistry Fast-Track is recommended for students who wish to earn graduate level course credit and who wish to obtain graduate level research experience. This program is suitable for those students who plan to pursue doctoral graduate studies in chemistry and for those who anticipate professional careers as chemists. BS in Chemistry degree of this fast-track program is an American Chemical Society Certified degree.

## ASSOCIATED PROGRAMS

For detailed information about the programs associated with this Fast Track, refer to their individual degree pages.

**Chemistry BS**

**Chemistry MS**

## Admissions Criteria

For admission to the fast-track program students must:

- Be within 30 hours of graduation
- Have completed 30 hours at UTA.
- Complete fast track foundation courses with a GPA of 3.25 or better: CHEM 2322, CHEM 2335, CHEM 3317 (or CHEM 4318), CHEM 3321 (or CHEM 3322).
- Maintain a 3.3 GPA or higher in all Chemistry courses completed at UTA, and have a cumulative GPA of a 3.3 or higher.

## Curriculum

### Foundations

General Core Requirements (<https://catalog.uta.edu/academicregulations/degree requirements/generalcore requirements/>)

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For Communication, select:

|           |                             |
|-----------|-----------------------------|
| ENGL 1301 | RHETORIC AND COMPOSITION I  |
| ENGL 1302 | RHETORIC AND COMPOSITION II |

For Mathematics, select:

|           |             |
|-----------|-------------|
| MATH 1426 | CALCULUS I  |
| MATH 2425 | CALCULUS II |

For Life and Physical Sciences, select:

|           |                              |
|-----------|------------------------------|
| PHYS 1443 | GENERAL TECHNICAL PHYSICS I  |
| PHYS 1444 | GENERAL TECHNICAL PHYSICS II |

For U.S. History, select:

|           |   |
|-----------|---|
| HIST 1301 | HISTORY OF THE UNITED STATES TO 1865          |
| HIST 1302 | HISTORY OF THE UNITED STATES, 1865 TO PRESENT |

For Component Area Option, select:

|           |              |   |
|-----------|--------------|---|
| MATH 2326 | CALCULUS III | 3 |
|-----------|--------------|---|

Chemistry Foundations

|              |   |   |
|--------------|---|---|
| CHEM 1101    | SUCCESS IN CHEMISTRY AND BIOCHEMISTRY   | 1 |
| MATH 3318    | DIFFERENTIAL EQUATIONS                  | 3 |
| or MATH 3319 | DIFFERENTIAL EQUATIONS & LINEAR ALGEBRA |   |
| PHYS 3313    | INTRODUCTION TO MODERN PHYSICS          | 3 |

Biology or Geology for science majors courses approved by advisor 8

### Fast Track Foundation Courses

|           |                        |   |
|-----------|------------------------|---|
| CHEM 2322 | ORGANIC CHEMISTRY II   | 3 |
| CHEM 2335 | QUANTITATIVE CHEMISTRY | 3 |
| CHEM 3317 | INORGANIC CHEMISTRY    | 3 |

|              |                       |   |
|--------------|-----------------------|---|
| or CHEM 4318 | INORGANIC CHEMISTRY   |   |
| CHEM 3321    | PHYSICAL CHEMISTRY I  | 3 |
| or CHEM 3322 | PHYSICAL CHEMISTRY II |   |

**Chemistry Specialization (Professional Courses)**

|           |  |   |
|-----------|--|---|
| CHEM 1341 | GENERAL CHEMISTRY I  | 3 |
| CHEM 1181 | GENERAL CHEMISTRY I LABORATORY FOR ADVANCED CHEMICAL TECHNOLOGIES  | 1 |
| CHEM 1342 | GENERAL CHEMISTRY II   | 3 |
| CHEM 1182 | GENERAL CHEMISTRY II LABORATORY FOR ADVANCED CHEMICAL TECHNOLOGIES | 1 |
| CHEM 2321 | ORGANIC CHEMISTRY I  | 3 |
| CHEM 2283 | SYNTHESIS AND ANALYSIS LABORATORY I                                | 2 |
| CHEM 2284 | SYNTHESIS AND ANALYSIS LABORATORY II                               | 2 |
| CHEM 3182 | PHYSICAL CHEMISTRY II LABORATORY                                   | 1 |
| CHEM 3181 | PHYSICAL CHEMISTRY I LABORATORY                                    | 1 |
| CHEM 4101 | SEMINAR IN CHEMISTRY   | 1 |
| CHEM 4311 | BIOCHEMISTRY I   | 3 |
| CHEM 4346 | ADVANCED SYNTHETIC METHODS   | 3 |
| CHEM 4461 | INSTRUMENTAL ANALYSIS  | 4 |
| CHEM 4380 | UNDERGRADUATE RESEARCH   | 3 |

Select at least 5 hours of 3000/4000 level CHEM courses. 5

Select electives sufficient to complete 120 hours required for the undergraduate degree. 3

Select three graduate-level Chemistry courses for undergraduate credit with guidance of Chemistry Advisor 9

Computer proficiency waived by grade of C or better in CHEM 2335

**Chemistry MS**

Complete remaining requirements for Chemistry MS with thesis 21

**Total Hours** 141

**SUGGESTED COURSE SEQUENCE (BS ONLY)****First Year**

| First Semester | Hours | Second Semester | Hours |
|----------------|-------|-----------------|-------|
| CHEM 1341      |       | 3 CHEM 1342     | 3     |
| CHEM 1181      |       | 1 CHEM 1182     | 1     |
| MATH 1426      |       | 4 MATH 2425     | 4     |
| ENGL 1301      |       | 3 ENGL 1302     | 3     |
| POLS 2311      |       | 3 POLS 2312     | 3     |
| CHEM 1101      |       | 1               |       |
|                |       | 15              | 14    |

**Second Year**

| First Semester  | Hours | Second Semester                                 | Hours |
|-----------------|-------|---|-------|
| CHEM 2321       |       | 3 CHEM 2322                                     | 3     |
| CHEM 2335       |       | 3 CHEM 2284                                     | 2     |
| CHEM 2283       |       | 2 MATH 2326                                     | 3     |
| PHYS 1443       |       | 4 PHYS 1444                                     | 4     |
| Elective Course |       | 3 Language, Philosophy, and Culture Requirement | 3     |
|                 |       | 15  | 15    |

**Third Year**

| First Semester | Hours | Second Semester                  | Hours |
|----------------|-------|----------------------------------|-------|
| CHEM 3321      |       | 3 CHEM 3322 or 5361 <sup>1</sup> | 3     |
| CHEM 3181      |       | 1 CHEM 3182                      | 1     |
| BIOL 1441      |       | 4 CHEM 4318                      | 3     |
| MATH 3319      |       | 3 PHYS 3313                      | 3     |
| HIST 1301      |       | 3 HIST 1302                      | 3     |
|                |       | Elective Course                  | 2     |
|                |       | 14                               | 15    |

**Fourth Year**

| First Semester                 | Hours | Second Semester                  | Hours |
|--------------------------------|-------|----------------------------------|-------|
| CHEM 3317 or 5341 <sup>1</sup> |       | 3 CHEM 4311 or 5331 <sup>1</sup> | 3     |

|                                |                                 |           |
|--------------------------------|---------------------------------|-----------|
| CHEM 4101                      | 1 CHEM 4346                     | 3         |
| CHEM 4461 or 5421 <sup>1</sup> | 4 CHEM 4380                     | 3         |
| BIOL 1442                      | 4 Social and Behavioral Science | 3         |
| Creative Arts                  | 3 Foundational Component Course | 3         |
| Advanced Elective Course       | 2                               |           |
|                                | <b>17</b>                       | <b>15</b> |

**Total Hours: 120**

<sup>1</sup> Once admitted to this fast-track program, students will be allowed to take up to 9 credit hours of CHEM graduate courses (if CHEM 5461 is taken, 10 credit hours are allowed) that may be used to satisfy both bachelor's and master's degree requirements.

## Advising Resources

First time in college students should plan to speak to a program advisor when starting their second year. Transfer students should be advised prior to New Maverick Orientation.

### Location:

SH 303

### Email:

chemugradadvisor@uta.edu

### Phone:

817-272-9687

### Web:

Advising Information (<https://www.uta.edu/academics/schools-colleges/science/departments/chemistry/advising/>)