

# APPLIED LABORATORY SCIENCE TECHNOLOGY (ALST) (AS DEGREE S0307)

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## Natural Sciences Division

### Degree S0307

This program provides theoretical and technical training to prepare students for employment as entry-level chemical technicians in fields such as chemical quality control, chemical process control, analytical chemistry, water quality, and research and development. The program includes a broad-based overview of workforce options and emphasizes development of analytical skills, instrument proficiency, critical thinking, and troubleshooting of experimental designs and outcomes.

This degree requires the completion of General Education coursework plus the following:

### Required Courses

| Course Prefix                                 | Course Name                                  | Units        |
|---|--|--------------|
| BUSM 10                                       | Principles of Continuous Quality Improvement | 3            |
| CHEM 20                                       | Introductory Organic and Biochemistry        | 5            |
| CHEM 50                                       | General Chemistry I                          | 5            |
| or CHEM 50H                                   | General Chemistry I - Honors                 |              |
| CHEM 51                                       | General Chemistry II                         | 5            |
| Choose six or seven units from the following: |  | 6-7          |
| MICR 22                                       | Microbiology                                 |              |
| PHIL 12                                       | Introduction to Ethics                       |              |
| or PHIL 12H                                   | Introduction to Ethics - Honors              |              |
| SPCH 26                                       | Interpersonal Communication                  |              |
| or SPCH 26H                                   | Interpersonal Communication - Honors         |              |
| <b>Total Units</b>                            |  | <b>24-25</b> |

### Program Learning Outcomes

*Upon successful completion of this program, a student will be able to:*

- use critical thinking to analyze and solve problems.
- troubleshoot experimental designs and outcomes.
- perform entry-level chemical technician duties such as chemical quality control, chemical process control, water quality, and R&D.

Review Student Learning Outcomes (SLOs) (<http://www.mtsac.edu/instruction/outcomes/sloinfo.html>) for this program.