

Chemical Technology Program

Division of Biology & Chemistry — Curriculum Code: 2306
Will Earn Upon Program Completion: Associate in Applied Science (A.A.S.) Degree

Why major in Chemical Technology?

This major prepares you for careers in the chemical, pharmaceutical, and health care industries as laboratory technicians, research assistants, or quality control analysts. With experience you may find positions in marketing, production, and consumer service. The program is offered jointly by Essex County College and the Technical Training Project Inc. (TTP). The instruction has a strong cooperative education component. Program participants receive six weeks of internship experience. TTP graduates who are already employed may choose to pursue the associate degree for professional advancement purposes.

If I major in Chemical Technology, can I transfer to an upper-division college or university?

The major is job-oriented and not designed for transfer to a baccalaureate program. However, credits earned in this associate degree program are transferable to technology programs at Thomas Edison State College. Also, other colleges and universities will apply most or all of the courses you have taken towards a bachelor's degree, depending upon their program requirements.

Are there any requirements I must satisfy before I start taking courses in my major?

All new students must take a basic skills competency test. Developmental courses can be taken while enrolled in the TTP Program with the permission of the director of the TTP Program.

How long will it take for me to complete this degree?

If you do not need remedial courses and you can take an average of 17 credits per semester, you should be able to complete the program in two years. If you have enrolled after completing the TTP program, you can complete this degree in two regular (fall and spring) semesters.

Where should I direct specific questions about this program?

For answers to questions on the TTP program, contact the Program Director at (973) 624-1400. For answers to questions on the Chemical Technology A.A.S. degree program, call the Division at (973) 877-3430.

Upon completion of this program, graduates will be able to:

- ◆ Demonstrate mastery of the fundamental concepts of chemistry and physics;
- ◆ Perform qualitative, quantitative, and instrumental analysis of raw and finished products using standard tools and equipment;
- ◆ Use the computer for collecting and assessing laboratory data and for preparing reports;
- ◆ Demonstrate knowledge of quality control standards;
- ◆ Offer operational assistance in solving technical problems; and
- ◆ Enhance employability in the chemical industry workforce.

Chemical Technology — A.A.S. Degree Program

<p>GENERAL EDUCATION REQUIREMENTS: (26-27 credits)</p> <p>Communication (6 credits) ENG 101 College Composition I 3 ENG 102 College Composition II or ENG 105 Technical Writing 3</p> <p>Social Science (6 credits) ANT 101, POL 104, PSY 101, or SOC 101 3 Any other ANT, POL, PSY, or SOC course 3</p> <p>Lab Science/Math (12 credits) MTH 100 or higher 4 BIO 101-102 or PHY 101-102 or PHY 113-114 8</p> <p>Humanities (3 credits) Select a History course from: HST 101, 102, 111, 112, 121, 122, 131, 132, 134, 135, 136, 137, 161 or 162 3</p> <p>MAJOR COURSE REQUIREMENTS: (18 credits)</p> <p>CHM 107 Technical Chemistry I* 3 CHM 108 Technical Chemistry II* 3 CHM 109 Technical Chemistry Lab* 2 CHM 111 Chemistry Seminar* 3 CHM 112 Chemical Calculations* 3 CHM 206 Instrumental Methods* 4</p> <p>ADDITIONAL COURSE REQUIREMENTS: (18 credits)</p> <p>MTH 109 Technical Math 3 PHY 101 College Physics I 4 PHY 102 College Physics II 4 CIS 131 or higher level CIS course 3 Science elective: Select from BIO, CHM, CIS, PHY (101 or higher) 4</p> <p>Total Credits Required for Degree 63</p> <p>* Courses taught by TTP for which college credit is awarded upon successful completion of the TTP Program.</p>	<p>RECOMMENDED SEQUENCE OF COURSES:**</p> <p>First Semester</p> <p>BIO 101 College Biology I 4 PHY 101 College Physics I 4 ENG 101 College Composition I 3 MTH 109 Technical Math* 3 Social Science requirement 3</p> <p>Second Semester</p> <p>BIO 102 College Biology II 4 PHY 102 College Physics II 4 ENG 102 College Composition II 3 Math requirement 3-4</p> <p>Third Semester</p> <p>CHM 107 Technical Chemistry I* 3 CHM 108 Technical Chemistry II* 3 CHM 109 Technical Chemistry Lab* 2 CHM 111 Chemistry Seminar* 3 CHM 112 Chemical Calculations* 3 CHM 206 Instrumental Methods* 4</p> <p>Fourth Semester</p> <p>History requirement 3 CIS requirement 3 Social Science requirement 3 Science elective 4</p>
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****NOTE:** This plan assumes the completion of all required developmental courses in reading, writing, and mathematics as well as other pre- and co-requisites for some of the courses, as listed in the Course Descriptions section.