

# Chemical Technology Certificate Program

*Division of Biology & Chemistry — Curriculum Code: 3306  
Will Earn Upon Program Completion: Certificate in Chemical Technology*

## ***Why should I participate in the Chemical Technology Certificate Program (also called the Technical Training Project Inc. Program or TTP)?***

If you want to enter the scientific workforce as soon as possible, the TTP program may be for you. TTP prepares individuals for technical careers as laboratory technicians and analysts of raw and finished products. In this program, participants receive 20 weeks of academic instruction as well as internship experience. Courses are taught by TTP professionals and guest lecturers from the industry. Essex County College recognizes TTP graduates by awarding them a certificate in Chemical Technology.

## ***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, but courses earned upon program completion can be applied to Essex County College's associate degree program in Chemical Technology. Also, credits earned in this program are transferable to degree programs at Thomas Edison State College.

## ***Are there any requirements I must satisfy before I start the program?***

You must have a high school diploma or GED.

## ***How long will it take for me to complete this program?***

You should be able to complete the program in 20 weeks.

## ***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.

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

- ◆ Demonstrate understanding of the basic principles of organic and inorganic chemistry;
- ◆ Make appropriate use of chemicals, materials, and lab equipment;
- ◆ Handle mathematical calculations;
- ◆ Maintain lab reports on experiments;
- ◆ Perform various techniques of wet and dry analysis; and
- ◆ Perform analysis of raw and finished products.

## Chemical Technology — Certificate Program

<p><b>GENERAL EDUCATION REQUIREMENTS:</b> None</p> <p><b>MAJOR COURSE REQUIREMENTS:</b> <b>(21 credits)</b></p> <table style="width: 100%; border: none;"> <tr><td style="width: 10%;">CHM</td><td style="width: 10%;">107</td><td style="width: 70%;">Technical Chemistry I*</td><td style="width: 10%; text-align: right;">3</td></tr> <tr><td>CHM</td><td>108</td><td>Technical Chemistry II*</td><td style="text-align: right;">3</td></tr> <tr><td>CHM</td><td>109</td><td>Technical Chemistry Lab*</td><td style="text-align: right;">2</td></tr> <tr><td>CHM</td><td>111</td><td>Chemistry Seminar*</td><td style="text-align: right;">3</td></tr> <tr><td>CHM</td><td>112</td><td>Chemical Calculations*</td><td style="text-align: right;">3</td></tr> <tr><td>CHM</td><td>206</td><td>Instrumental Methods*</td><td style="text-align: right;">4</td></tr> <tr><td>MTH</td><td>109</td><td>Technical Mathematics</td><td style="text-align: right;">3</td></tr> </table> <p><b>ADDITIONAL COURSE REQUIREMENTS:</b> None</p> <p><b>Total Credits Required for Certificate                    21</b></p> <p>* Courses taught by TTP for which college credit is awarded upon successful completion of the TTP Program.</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	MTH	109	Technical Mathematics	3	<p><b>RECOMMENDED SEQUENCE OF COURSES:**</b></p> <table style="width: 100%; border: none;"> <tr><td style="width: 10%;">CHM</td><td style="width: 10%;">107</td><td style="width: 70%;">Technical Chemistry I*</td><td style="width: 10%; text-align: right;">3</td></tr> <tr><td>CHM</td><td>108</td><td>Technical Chemistry II*</td><td style="text-align: right;">3</td></tr> <tr><td>CHM</td><td>109</td><td>Technical Chemistry Lab*</td><td style="text-align: right;">2</td></tr> <tr><td>CHM</td><td>111</td><td>Chemistry Seminar*</td><td style="text-align: right;">3</td></tr> <tr><td>CHM</td><td>112</td><td>Chemical Calculations*</td><td style="text-align: right;">3</td></tr> <tr><td>CHM</td><td>206</td><td>Instrumental Methods*</td><td style="text-align: right;">4</td></tr> <tr><td>MTH</td><td>109</td><td>Technical Mathematics*</td><td style="text-align: right;">3</td></tr> </table>	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	MTH	109	Technical Mathematics*	3
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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 of the catalogs.