

# LANSING COMMUNITY COLLEGE

## CURRICULUM GUIDE

Chemical Technology  
Associate in Applied Science Degree

Curriculum Code: 0163 (Effective Fall 2006 – Summer 2011)

Graduates with associate degrees in Chemical Technology are much in demand by the chemical industry. This program prepares students to work with chemists and chemical engineers in many settings. Research, development, and production of pharmaceuticals, agricultural chemicals, and plastics as well as related functions such as sales and technical writing are some of the opportunities that are available to persons with this type of training. **Not all courses in this program transfer to all colleges.** Students planning to transfer should see an academic advisor or counselor before enrolling in any course.

### PREREQUISITES

Students should see *Course Descriptions* or *Course Offerings* for course prerequisite information. See the *Assessment and Placement Testing* section for skills assessment and advising information.

### INFORMATION

Contact the Science Department, Arts and Sciences Building, Room 301, telephone number (517) 483-1092 or Counseling and Advising Centers, Gannon Vocational-Technical Center, Room 204, telephone number (517) 483-1904.

### REQUIREMENTS

**TOTAL: 43 CREDITS**  
CREDIT HOURS

| CODE    | TITLE                         |   |
|---------|-------------------------------|---|
| CHEM151 | General Chemistry Lecture I   | 4 |
| CHEM152 | General Chemistry Lecture II  | 3 |
| CHEM161 | General Chemistry Lab I       | 1 |
| CHEM162 | General Chemistry Lab II      | 1 |
| CHEM211 | Chemical Process Technology I | 4 |
| CHEM251 | Organic Chemistry Lecture I   | 4 |
| CHEM252 | Organic Chemistry Lecture II  | 4 |
| CHEM262 | Quantitative Analysis         | 3 |
| CHEM272 | Organic Chemistry Laboratory  | 2 |
| CPSC120 | Introduction to Computers     | 3 |
| PHYS221 | Introductory Physics I        | 4 |
| SOCL120 | Introduction to Sociology     | 4 |
| SPCH120 | Dynamics of Communication     | 3 |
| STAT170 | Introduction to Statistics    | 3 |

### LIMITED CHOICE REQUIREMENTS

**TOTAL: 21-26 CREDITS**

Complete the indicated number of credits from **EACH CHOICE** listed below.

#### CHOICE 1: General Education Core Areas

**0 Credits**

(See *General Education Core Requirements* for information on how to fulfill these requirements.)

Core area proficiency exams, where appropriate, are available for each core area.)

|  |   |
|--|---|
| Communication Core Area (See Note 1)                     | 0 |
| Global Perspectives and Diversity Core Area (See Note 1) | 0 |
| Mathematics Core Area (See Note 2)                       | 0 |
| Science Core Area (See Note 1)                           | 0 |
| Writing Core Area (See Note 3)                           | 0 |

|   |                      |
|---|----------------------|
| <b>CHOICE 2: Mathematics</b> (Choose one subchoice) | <b>5–7 Credits</b>   |
| <b>Subchoice 2A</b>                                 |                      |
| MATH121 College Algebra I                           | 4                    |
| MATH122 College Algebra II and Trigonometry         | 3                    |
| <b>Subchoice 2B</b>                                 |                      |
| MATH126 College Algebra and Trigonometry            | 5                    |
| <b>CHOICE 3: Writing</b> (See Note 4)               | <b>3–4 Credits</b>   |
| WRIT121 Composition I                               | 4                    |
| WRIT124 Technical Writing                           | 3                    |
| <b>CHOICE 4: Related Courses</b>                    | <b>13–15 Credits</b> |
| BIOL127 Cell Biology                                | 4                    |
| BIOL203 Microbiology                                | 3                    |
| BIOL204 Microbiology Laboratory                     | 1                    |
| ENVR121 Environmental Rules and Regulations         | 3                    |
| ENVR122 Environmental Sampling & Instrumentation    | 4                    |
| ENVR131 Industrial Process Safety                   | 3                    |
| FIRE220 Hazardous Materials/Fire Service            | 4                    |
| PHYS222 Introductory Physics II                     | 4                    |
| SCIN287 Science Technology Internship               | 4                    |
| WRIT122 Composition II                              | 4                    |
| <b>MINIMUM TOTAL</b>                                | <b>64</b>            |

**NOTES:**

1. Students completing "REQUIREMENTS" have fulfilled the requirements for this Core area.
2. Students completing CHOICE 2 have fulfilled the requirements for this Core area.
3. Students completing CHOICE 3 have fulfilled the requirements for this Core area.
4. WRIT121 is recommended for students planning to transfer.

**SUGGESTED COURSE SEQUENCE**

Students should see course descriptions to find out when departments plan to offer courses. Students who for any reason are unable to follow the course sequence suggested below (for example, those who are part-time, have transferred in courses from another school, or have prerequisites to fulfill) should contact an academic advisor or counselor for help with adjustments.

| I          | II         | III        | IV         |
|------------|------------|------------|------------|
| CHEM151    | CHEM152    | CHEM251    | CHEM211    |
| CHEM161    | CHEM162    | CHEM262    | CHEM252    |
| SPCH120    | CPSC120    | PHYS221    | CHEM272    |
| Lim. Ch. 2 | STAT170    | SOCL120    | Lim. Ch. 4 |
| Lim. Ch. 3 | Lim. Ch. 4 | Lim. Ch. 4 | Lim. Ch. 4 |