

# Process Technology

Unable to load contents of IFRAME at this location in the original document. See original HTML document and notify an administrator.

The field of process technology appeals to people who enjoy the challenges involved in using advanced computer technology and instrumentation to operate a variety of equipment systems and industrial processes. Process technology is defined as the study and application of the scientific principles associated with the operation and maintenance of the chemical processing industry (CPI).

Process technicians gather information using instruments that monitor process conditions such as pressure, temperature, level, and flow rates. They operate lab equipment to keep their plants running safely and efficiently, along with ensuring the efficient production of products that meet customer specifications.

As a process technician or operator, you may work both indoors and outdoors alongside chemical engineers, maintenance personnel, and other professionals. You will be expected to use your knowledge of computers, math, physics, and chemistry to monitor and troubleshoot plant operations. Strong communications skills are also required, as you will need the ability to write, give oral presentations, and exercise effective listening skills in order to succeed as a process technician.

## What Will I Learn?

The Study of Process Technology involves learning how the industrial process works. You will learn about process equipment such as pumps, compressors, reactors, and distillation columns. Technical knowledge and skills are gained in areas such as operating equipment, controlling instrumentation systems, monitoring process systems, and troubleshooting those systems. These courses prepare students for entry-level employment as process technicians in the processing industries.

[View Program Learning Outcomes](#)

## "What Can I Do With This Course of Study?"

Graduates of the Lee College Chemical Process Technology program have the opportunity to work as:

- Refinery technician or board operator
- Chemical technician or console operator
- Research technicians Laboratory technician
- Power generation technician
- Pharmaceutical technician
- Food processing and distribution technician
- Paper and pulp processing technician
- Process training coordinator
- Engineering specialist
- Quality control technician First line supervisor Second line supervisor

## AAS: Process Technology

**Foundations:** These are the courses students need in order to progress in their career/college pathway, as they either provide a certificate or lay the groundwork for moving to the next set of courses.

| Course                              | Course Title   | Counts Toward Certificate |
|-------------------------------------|--|---------------------------|
| PTAC 1302                           | Introduction to Process Technology   | PT1                       |
| PTAC 1410                           | Process Technology I: Equipment  | PT1                       |
| PTAC 1332                           | Process Instrumentation I  | PT1                       |
| Applied Math General or Mathematics | Recommended: TECM 1341<br>Other options: any TECM or MATH Core course<br>Math 1314 is recommended for students also pursuing MAET2 | PT1                       |
| SCIT 1414                           | Applied General Chemistry I  | PT1                       |
| PTAC 1308                           | Safety, Health, and Environment I  | PT1                       |
| PTAC 2420                           | Process Technology II: Systems   | PT1                       |
| PTAC 2314                           | Principles of Quality  | PT1                       |
| PTAC 2346                           | Process Troubleshooting  | PT1                       |
| PTAC 2438                           | Process Technology III: Operations   | PT1                       |

**Knowledge Building:** These courses further the students' knowledge in the area of study and increase their preparation for the degree completion.

| Course    | Course Title   | Counts Toward Certificate |
|-----------|--|---------------------------|
| CTEC 2445 | Unit Operations  |                           |
| ENGT 2310 | Introduction to Manufacturing Processes  |                           |
| PHYS 14xx | Physics Elective;<br>Recommended: PHYS 1405; Other options: any 4-credit PHYS core course<br>PHYS 1401 is recommended for students also pursuing MAET2 |                           |

|   |  |
|---|--|
| Core Communication or ENGL 1301T (Technical Communication)<br>SBS/HIST/GOVT | Core Communication or ENGL 1301T (Technical Communication)<br>Recommended: HIST 1301<br>Other options: any SBS/HIST/GOVT core course |
|---|--|

**Completion: These are the courses the student needs in order to complete the degree plan and prepare to enter the workforce.**

| Course   | Course Title  | Counts Toward Certificate |
|--|---|---------------------------|
| Oral Communication                             | Recommended: SPCH 1315<br>Other options: any SPCH core course                         |                           |
| Creative Arts/Language, Philosophy and Culture | Recommended: ARTS 1301, MUSI 1306<br>Other options: any Creative Arts/LPC core course |                           |
| ELECTIVE                                       | Recommended: PSYC 2301 or HIST 2301<br>Other options: any course                      |                           |

### **PT1: Certificate of Completion — Process Technology**

**Foundations: These are the courses students need in order to progress in their career/college pathway, as they either provide a certificate or lay the groundwork for moving to the next set of courses. *NOTE: This is a level-two certificate and is subject to Texas Success Initiative (TSI) college readiness. [Per Texas Administrative Code, Title 19, Part 1, Chapter 4, Subchapter C, §4.54.a.7](#)***

| Course                              | Course Title   | Counts Toward Certificate |
|-------------------------------------|--|---------------------------|
| PTAC 1302                           | Introduction to Process Technology   | PT1                       |
| PTAC 1410                           | Process Technology I: Equipment  | PT1                       |
| PTAC 1332                           | Process Instrumentation I  | PT1                       |
| Applied Math General or Mathematics | Recommended: TECM 1341<br>Other options: any TECM or MATH Core course<br>Math 1314 is recommended for students also pursuing MAET2 | PT1                       |

|           |                                       |     |
|-----------|---------------------------------------|-----|
| SCIT 1414 | Applied General<br>Chemistry I        | PT1 |
| PTAC 1308 | Safety, Health, and<br>Environment I  | PT1 |
| PTAC 2420 | Process Technology II:<br>Systems     | PT1 |
| PTAC 2314 | Principles of Quality                 | PT1 |
| PTAC 2346 | Process Troubleshooting               | PT1 |
| PTAC 2438 | Process Technology III:<br>Operations | PT1 |

[CAREERS IN  
PROCESS TECH.  
My Next Move](#)

■

[Live Chat](#)

## Contact Info.

Bryant Dyer  
Division Chair  
832.556.4521  
[bdyer@lee.edu](mailto:bdyer@lee.edu)

[Contact an Advisor/Counselor](#)