

Associate in Applied Science in Applied Process Technology

The Applied Process Technology (APT) Degree Program is a new A.A.S. program to train chemical process operators. The program was proposed by a consortium of chemical companies known as the Chemical Alliance Zone.

A chemical process operator works in the safe production, refining, and transfer of various chemicals in three states of matter---solids, liquids, and gases. Production is carried out in reactors and converters. Refining is done in distillation columns, filter presses, separators, and many other types of equipment. These chemicals are transferred through pipelines to shipping containers or storage tanks. In operating equipment, the operator must observe, interpret, and record data from gauges, instruments, computer displays, log books, and laboratory analysis. The operator will need to make changes in pressure, flow, temperature, level and other parameters by operating control devices including valves, switches, and levers. Operators may also be required to operate moving equipment such as aerial work platforms, forklifts, and track mobiles. Minor maintenance activities requiring the use of hand tools is done frequently by operators. The operator must be able to solve simple math problems and be able to run lab tests to assure quality products are being made. An operator must have good written and verbal communication skills. Being able to recognize unusual conditions and troubleshoot problems are essential traits for a chemical process operator.

Program Learning Outcomes

Upon completion of this program, the student will be able to:

1. Prepare, measure, and feed raw material and processing agents into plant equipment.
2. Draw samples of products for laboratory analysis.
3. Perform chemical tests on product, using standard test equipment, materials, and procedure.
4. Monitor gauges, signals, and recording instruments, turn valves, and move controls to regulate temperatures, pressures, levels, and flows through a process system to effect prescribed reaction within critical limits, according to knowledge of equipment and process.
5. Maintain log of gauge readings and shift production.

For more information contact:
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CURRICULUM/SUGGESTED SEQUENCE

(60 hours required for graduation)

FIRST SEMESTER

ENGL 101	English Composition I	OR	
ENG 110	English Composition I		3
HUM 101	Humanities		3
MAT 130	Technical Math I		3
APT 101	Intro to Chemical Operations		3
APT 102	Process Fundamentals		<u>4</u>
	Total Credits		16

THIRD SEMESTER

APT 105	Industrial Mechanics	3
APT 204	Safety Skill Training II	3
APT 203	Applied Process Technology II	3
APT 201	Water & Wastewater Treatment	3
COMM 100	Speech Communications	<u>3</u>
	Total Credits	15

SECOND SEMESTER

PPT 202	Instrumentation & Control	3
APT 103	Process Technology I	4
APT 199	Applied Chemistry	3
BST 240	Fund of Bus Comp Tech	OR
CS 106	Intro to Comp & Office Appl	3
APT 202	Safety Skill Training I	<u>3</u>
	Total Credits	16

FOURTH SEMESTER

ENG 120	Technical Writing	3
APT XXX	Process Technology III	4
APT 250	APT Capstone	3
Elective	Social Science Elective	<u>3</u>
	Total Credits	13

Social Science Electives: Choose one: SOC 101, POSC 100, 101, ECON 201, 202

