# DEPARTMENT OF TECHNOLOGY AND JUSTICE STUDIES



CLAREMORE | BARTLESVILLE | PRYOR | ONLINE

## About the Department

The Department of Technology and Justice Studies at Rogers State University combines technical know-how with the educational skills needed to succeed in a rapidly evolving workplace. A degree in applied technology equips students to more quickly ascend into management or supervisory positions at technology firms, manufacturing companies, public sector organizations and more. A degree in justice administration provides students with specialized skills and knowledge needed to succeed in law enforcement, government, corrections and security.

### Jim Berryman Instructor

"Process Technology is a new and exciting option in the Applied Technology field! Our graduates will be effective communicators, analytical thinkers and team players. Today's global work climate requires employees to be accountable for themselves as well as have the ability to work in a team environment, communicate well with other trades and craftsmen, have the analytic skills to make logical decisions, and have a vision of the bigger context of a project."

# What is Process Technology?

Process industries take raw materials and convert them into useful products for consumers. Examples would be refining crude oil into gasoline, diesel and motor oil; converting raw ores into pure compounds or elements like aluminum, germanium and iron or making metal alloys that contain these elements; converting whole grains like corn and wheat into edible foods for the grocery store or ethanol for gasoline; burning coal or natural gas to produce electricity.

# What is the Technician's Role?

Refineries, power plants, large chemical plants all run 24 hours a day, 365 days a year. The people that operate the various reactors, pumps, compressors, heat exchangers and other equipment must man those plants the entire time they are running, which again, is all the time. They have an understanding of physics and chemistry to allow them to make proper adjustments to flow rates, temperatures, pressures and other physical properties.

# Is there demand in Oklahoma?

There is a very high demand for operators/technicians locally in NE Oklahoma, regionally in the 4-states and nationally. One estimate is there are currently between 300,000 and 600,000 job openings nationwide in manufacturing. The majority of those are for operators. Nearly 30 percent of current operators are 55 years and older, meaning a high retirement rate within the next five to 10 years opening a position for you to fill! The local plants give job applicants with a PTECH degree top consideration. This field is dominated by males but there's no reason females would be any less successful!

# What does a typical day look like?

Most operators will be required to work shifts, alternating between daytime, evening and night shifts, since most processing industries operate 24 hours per day, 7 days a week. Many operators work 12 hour shifts for 4 days and then have 3-4 days off. Operators may have to work some weekends and holidays but are compensated extra for those times. In general, process operator positions are not heavy, manual labor jobs. They work in climate controlled rooms, monitor temperature and pressure Several times during a shift, an operator will make rounds, physically observing the equipment, making measurements and checking for leaks, excess heat or pressure.

## What salary can I expect?

Starting salaries for operators with an Associate of Applied Science degree in Process Technology will range from \$20 to over \$35 per hour. That is \$40-70,000 per year. Most companies offer excellent benefits in addition to salary. Operators at large plants in the Tulsa area typically earn over \$100,000 per year as soon as their second year on the job.

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# Curriculum

#### ASSOCIATE IN APPLIED SCIENCE PROCESS TECHNOLOGY OPTION

(61 Total Credit Hours)

(40 additional credit hours required beyond 21 General Education Coursework)

#### **COMMUNICATIONS** (6 hours)

English Composition I*	E 001/ENGL 1113
English Composition II*	E 002/ENGL 1213
Speech Communication	SPCH 1113

#### POLITICAL SCIENCES (6 hours)

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United States History I*, or	HS 005/HIST 2483
United States History II*, and	HS 006/HIST 2493
United States Government*	PS 101/POLS 1113

#### SCIENCE AND MATHEMATICS (7 hours)\* Mathematics MATH 1513

Mathematics	MAIHIDIS
Science	PHYS 1014

\*(7 credit hours for Science and Mathematics to allow for required PHYS 1014 and MATH 1513.)

#### THE UNIVERSITY EXPERIENCE/

**ORIENTATION** (2 hours)The University ExperienceUNIV 1152

#### **TECHNICAL SPECIALTY** (28 hours)

Introduction to PTEC
Safety, Health, and Environment
Process Quality
Equipment
Instrumentation
Systems
Operations
Internship in PTEC

Remaining 12 hours to be selected from Technical Specialty PLA, Technical Related Coursework, and/or recommended courses below:

#### **RECOMMENDED COURSES**

(9 hours to come from 40 remaining hours)

ACCT 2103	Accounting I – Financial	3 credit hrs.
CS 1113	Microcomputer Applications*	3 credit hrs.
ECON 2123	Principles of Microeconomics	3 credit hrs.
	_	9 credit hrs.

\*Meets OSRHE computer literacy requirements









Have Questions? Jim Berryman | jberryman@rsu.edu | 918-825-5433 Department of Technology and Justice Studies | RSU Pryor