

PROFESSIONAL DEVELOPMENT



**Pennsylvania
College of Technology**
A Penn State Affiliate

PLASTICS PROCESS TECHNICIAN



Plastics Processing Technicians (PPTs) are critical to production efficiency.

PPT is a three-year apprenticeship that develops machine operators into valued technicians. Upon completion, apprentices will be able to safely and efficiently start up, changeover, monitor and troubleshoot a given process. The robust program also includes business skill development, including communication and teamwork modules to help apprentices become well-rounded employees.

Program Features:

- ◇ Delivers process-specific training
- ◇ Trains workers in any location via the *iris* platform
- ◇ Comprehensive three-year registered program
- ◇ Apprentices can apply for advanced credit towards a Penn College degree



Penn College's apprenticeship program trains workers to:



Identify that material properties are in spec



Develop a clear processing window for each product



Process data to improve efficiency



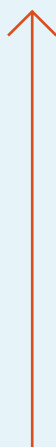
Methodically troubleshoot problems



Perform product checks to ensure quality



Operate auxiliary equipment



PLASTICS INDUSTRY ESSENTIALS

Extrusion & Injection Molding

Workplace Safety

Building Interpersonal Communication Skills

Plastics Materials

Mechanical & Physical Properties

Polymer Structures

Math for Quality

Extrusion Only

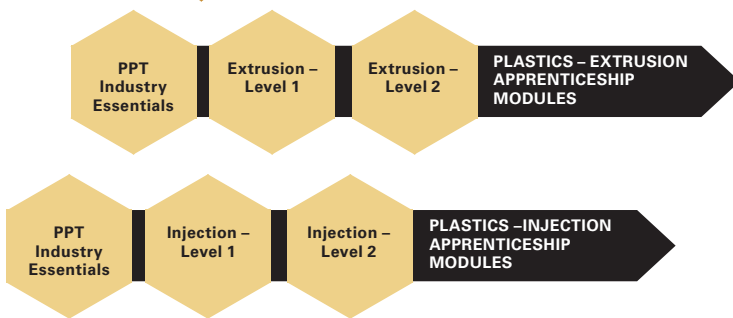
Extrusion Fundamentals

Injection Molding Only

Introduction to Fluid Systems

Major Components of an Injection Molder

Proper Processing Conditions



EXTRUSION – LEVEL 1

Extrusion Equipment & Process

Processing Conditions

Behavior Inside the Extruder

Introduction to Hydraulic & Pneumatic Components

Twin-Screw Equipment, Design & Applications

Coextrusion Applications

EXTRUSION – LEVEL 2

Troubleshooting – Five-Step Problem Solving

Mechanical Troubleshooting

Granulators, Chillers & Heaters, and Screw Cleaning

Screen Changers & Gear Pumps

Inspection & Auditing

Statistical Process Control

Continuous Improvement

INJECTION MOLDING – LEVEL 1

Equipment Components & Tools

Function of the Injection Unit

Injection Molding Screws

Clamping Systems

Processing Conditions

Introduction to Electricity

Mold Cooling

Preventative Maintenance Schedules

Setting Up a Cycle

Decoupled Molding

INJECTION MOLDING – LEVEL 2

Co-Injection, Insert Molding

Rubber Injection Molding

Five-Step Problem Solving

Mechanical Troubleshooting

Inspection & Auditing

Statistical Process Control

Continuous Improvement

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Penn College operates on a nondiscriminatory basis.

**Penn College is approved by
the US Department of Labor
and the PA Department of
Labor & Industry as a sponsor
of apprenticeship programs.**