

# Plastics Process Technician Apprenticeship Program



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1. *We recommend that you move your cursor to the Instructor Video, right click, and select Pin Video*
2. *Then move your cursor to the top of the page and select "Viewer Options". Under Viewer Options select Side-by-Side. This will split the screen showing the PPT file and the Instructor video feed. This will allow you to easily maximize whichever view is desired at the time...either the PPT file or the instructor video feed*

Thank you. We will be starting the webinar soon.



### Specialized

#### Material Specific:

- Failure Analysis
- Material Selection

### Online

#### 4-hour seminars

#### Bootcamp

- Plastic Materials
- Mold Design
- Injection Molding
- Part Design
- Simulation

#### Diagnostic

- Flow Grouping

#### Design

- Runner & Gating

### Development

#### 2-Day overview courses

- Plastics 101
- Plastic Materials
- Mold Design
- Injection Molding
- Part Design

### Autodesk Moldflow

#### Simulation (also available online)

#### For Users

- Fundamentals
- Advanced Flow
- Advanced Cool/Warp
- Adviser

#### For Non-Users

- Understanding & Applying

### Processing

#### Hands-on

#### Molders' Series

- Molding 1
- Molding 2
- Molding 3

#### iMFLUX

- Applied iMFLUX Processing

### PTE Program

#### Comprehensive plastics education

- Plastic Materials
- Mold Design
- Injection Molding
- Part Design



# Agenda

8:30 - 8:40 Welcome to AIM; review meeting agenda (Dave Hoffman)

8:40 - 8:55 Overview of the PPTA program (Lance Hummer, Shawn DeLong)

8:55-9:10 What we have learned/What we want to learn (Dave Hoffman, Jason Travitz)

9:10-9:25 Input/questions from the audience

9:25 - 9:30 Introduction of the 2-year AAS-AT, Plastics Engineering Technology & Injection Molding degree (Hope Lineman) + 4th PPTA cohort in 2021 (Lance & Shawn)

# Plastics Process Technician Apprenticeship Program

## Overview

# Participating Companies



# The Curriculum



OSHA30 & Teambuilding (5 Days)

Plastic Materials (2.5 Days+)

- 6 Online Review Meetings\*
- Exam

Molding Math (2 Days)

Mold Design (2.5 Days+)

- 6 Online Review Meetings\*
- Exam

Maintenance (5 Days)

\* Required items and time:

- Phone, computer, internet access
- 1.5 hours per meeting + personal time to complete the homework

Molding 1 (4 Days+)

- 4 Online Review Meetings\*
- Morning review + Exam

Quality Systems (5 Days)

Molding 2 (10 Days+)

- Week 1, Classroom + Labs
- 6 Online Review Meetings\*
- Week 2, Classroom + Labs + Exam



# The Curriculum



Apprenticeship Schedule	Training Hours	On-the-Job Hours
Health & Safety, Teambuilding OSHA	40	500
Plastics Materials	32	500
Molding Math / Mold Design	48	500
Maintenance	40	500
Molding 1-Start-Up & Troubleshooting Essentials	46	500
Quality Systems	40	500
Molding 2 - Mechanics Of Molding & Process Development	89	500
Additional Required OJT		500
<b>Total in-class Training hours</b>	<b>327</b>	
<b>Total on-the-job hours</b>		<b>4000</b>

# Current Cohorts

- Cohort 1
  - 10 Students
  - Started: November 2018
  - Status: coursework completed, OJT finishing soon
- Cohort 2
  - 8 Students
  - Started: September 2019
  - Status: Molding 2 (May 3<sup>rd</sup>) & OJT remaining
- Cohort 3
  - 10 Students (limit due to COVID)
  - Started: September 2020
  - Status: Finishing Plastic Materials on 2/8/2020



# What We Have Learned... and Want to Learn

# What We Have Learned...

- From the Apprenticeship Team's Perspective
  - Intentions:
    - Apply critical thinking using their knowledge of Plastic Materials, Mold Design, and Processing
    - Recognize potential problems and mitigate them before they become an issue at the press
    - Molding Machines
      - Walk up to any molding machine and start-up an existing process with less scrap and downtime
      - Develop and document a molding process for new molds
    - Become better leaders
      - Courses on safety, teambuilding, quality, and maintenance

# What We Have Learned...

- From the Apprenticeship Team's Perspective
  - Results:
    - See tremendous growth of the students
      - “Golden Ticket”
      - Comradery
      - Creativity
      - Critical thinking
      - Leadership
    - Online Reviews are invaluable
      - Enforce and clarify key concepts
      - Improve learning retention



# What We Have Learned...

- From the Apprenticeship Team's Perspective
  - Results:
    - Courses were challenging; were the courses too hard?
      - Molding 2
        - Mindshift for instructors
        - Realize that not everyone is a Molding 2 employee
          - But that's OK...
            - They are passing a program, not a specific course
            - Still learn and develop skills by getting exposed to Molding 2 responsibilities
    - AIM Actions
      - Constantly improving courses
        - Better separation between Molding 2 & 3
      - Demographics from cohort to cohort
      - Ease on exam & requirements
        - PPTA Molding 2 vs. AIM Molding 2

# What We Want to Learn...

- From Your Company's Perspective
  - Voluntary Feedback:

# AAS-AT Degree, Plastics Technology & Engineering, Injection Molding

- Hope Lineman, Clarion University
  - Strategic Advisor to the Chancellor on Workforce Innovation
  - Dean, Career and Workforce Education
  - 814-393-1270
  - [hlineman@clarion.edu](mailto:hlineman@clarion.edu)
- Some of the courses in PPTA would apply toward the 2-year AAS-AT Degree

# Fourth Cohort

Starting in Fall of 2021

Timing to reserve seats & for  
program funding is critical!

***Action Item:  
Contact Lance Hummer for Help With  
Applying for Funding & Registration***

*Thank you for your time. Questions are welcomed.*

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