



Course Title: Injection Molding

Course Length: 3 days, in-person

Time in Class per day (hours): 8 hours of in-person instruction

Delivery Options: Company site or at provider

Class Size: Minimum 6 / Maximum 12

Price Per Student: \$1,045.00

Location: Oakland County *or* Company Site

Course Description:

This course is designed to provide an understanding of injection molding basics and terminology. Course topics include injection mold cycles, control, plastics flow, troubleshooting issues and molding strategies.

Lab Description:

Participants will learn and apply principles taught during instruction. They will engage in interactive discussions as well as participate in relevant, hands on lab experiments.

Course Learning Objectives:

Upon completion of this course participants will be able to:

- Describe injection molding cycle
- Understand the injection unit, clamp, and mold
- Describe the injection control

Course Content/Syllabus:

Process:

Mold Considerations

- Zero-Corner & Leader Pins/Bushings
- Shut-Off Areas & Die-Locks
- Net Pads & the Spotting Process
- Lesson Review

Part Features

- Part Area Boundaries
- Surface Finishes & the Polishing Process
- Part Area Components
- Lesson Review



Port Quality: Parting Line, Gloss:

Molded Part Defects

- Gate Scars, Parting Lines, & Mismatch
- Flow Lines, Weld Lines, Flash, Sink, & Warpage
- Drag/Scuff, Ejector Pin Marks, Pin Push, & Gas Trap
- Troubleshooting
- Lesson Review

Functions of Injection Molding

- Molding Cycle, Part Area, & Plastic Delivery System
- Vents, Temperature Control, & Part Ejection
- Lesson Review

Molded Part Features

- Stand-Alone Parts, Line of Draw, & Surface Finish
- Show/Non-Show Sides, Wall Thickness, & Part Draft
- Ribs, Bosses, Holes, & Undercuts
- Forming Undercuts & Part Radii
- Lesson Review

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