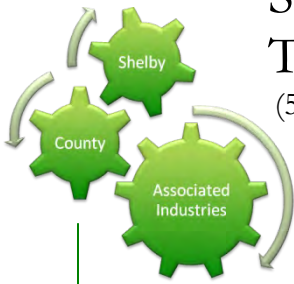


Shelby County Associated Industries Training Consortium

(502) 633-5068 | scidf.com/associated-industries



Plastic Injection Molding (Mold Theory)

Presents mold-making including thermoplastic and thermosetting materials, compression mold, transfer mold, injection molds and mold components, the heating and cooling of molds and the methods of producing cores and cavities.

11-week course

This course counts for **3 hours** college credit. You will not need to take any outside steps to get admitted or enrolled. On the first day of class, JCTC will be there to get basic information (one page with address, DOB, email, etc.). Upon completion, this course will show on each student's academic transcript.

Competencies:

Upon completion of this course, the student can:

1. Define and discuss mold making methods, materials, and types.
2. Define and discuss mold components, heat transfer, sets and inserts.
3. Explain draft angles, venting, shrinkage and design features.
4. Develop a plan for the repair and maintenance of molds.

Outline:

- I. Mold Making Methods and Materials
 - A. Plastic materials
 - B. Thermoplastic and thermosetting materials
 - C. Compression molds
 - D. Transfer molds
 - E. Blow molds
 - F. Injection molds
- II. Mold Components
 - A. Slides, undercuts and slide movement
 - B. Cams and cam pins
 - C. Ejection systems and components
 - D. Heat transfer, hot and cold runner systems, gates and cold slugs
- E. Core pins and sleeves, mold sets, core and cavity inserts
- III. Mold Design and Repair
 - A. Draft angles and venting
 - B. Mold repair and maintenance
 - C. Material shrinkage