

INJECTION MOLD SETUP APPRENTICESHIP

Overview

Injection Mold Setup (Plastic) Apprenticeship

Program Code: 50-420-1

For more information: www.wctc.edu/injection-mold (<http://www.wctc.edu/injection-mold/>)

Injection mold machine setters handle the setup and operation of equipment to produce parts by injecting materials, such as plastic, into a cavity and turning the molded pieces into usable parts for a variety of industries. Receive high-quality, hands-on classroom instruction that complements on-the-job apprenticeship training critical for success in the industrial trades.

The minimum required course grades and program grade point average (GPA) for students under this catalog are:

Core Courses = C
Program GPA = 2.0

Build your degree along a career pathway. Start with a couple of courses or an entry-level credential to enter the job market in your area of interest, then continue with higher credentials on your educational path for job advancement and higher wages.

Career Pathway

1. Injection Mold Setup Apprenticeship
2. Technical Studies - Journeyworker

Additional details regarding apprenticeship:

- Obtain further information about apprenticeship programs by visiting the State's Department of Workforce Development website: <https://dwd.wisconsin.gov/apprenticeship> (<https://dwd.wisconsin.gov/apprenticeship/>)
- Secure employment as a State of Wisconsin Indentured Apprentice.
- WCTC will send the schedule to the student; application to WCTC is not necessary by the student.

Learning Outcomes

Program Outcomes

1. Classify the structure and properties of plastics.
2. Install [and maintain] molds.
3. Set-up injection molding machines.
4. Compare plastic processes used in the industry.
5. Analyze mold design and construction.
6. Interpret industrial prints and schematics.
7. Apply mathematics to industrial situations.
8. Solve problems by troubleshooting equipment components and processes.
9. Apply automation principles to injection molding & plastics.

Critical Life Skills

To help our students prepare for success in a workplace and society that is **increasingly global, multi-cultural, and collaborative**, all students are given opportunities to develop and demonstrate Critical Life Skills, both in and out of the classroom. The following Critical Life Skills are learning outcomes for WCTC students.

- **Communication:** Demonstrate appropriate communication.
- **Critical Thinking/Problem Solving:** Demonstrate critical thinking skills to analyze situations and solve problems.
- **Relationships:** Demonstrate effective interpersonal skills.
- **Self-management:** Demonstrate responsible and respectful behavior.

Required Courses

| Code | Title | Credits |
|--|--------------------------------|-----------|
| Core Courses | | |
| 414-500 | Electricity-Apprentices | 1 |
| 419-501 | Apprentice Hydraulics | 1 |
| Approved Substitute: 612-310 | | |
| 419-502 | Pneumatics for Apprentices | 1 |
| Approved Substitutes: 612-315 OR 419-104 | | |
| 462-506 | Schematics-Inj Mold Setup | 1 |
| 463-500 | Injection Mold Setup Related I | 2 |
| 463-501 | Injection Mold Related II | 2 |
| 463-502 | Injection Mold Related III | 2 |
| 463-503 | Injection Mold Related IV | 2 |
| 664-518 | Automation for Apprentices | 2 |
| 664-519 | Automation Setup Apprentices | 1 |
| General Studies | | |
| 804-504 | Industrial Math I | 1 |
| Approved Substitute: 804-304 OR 804-107 OR 804-113 OR 804-114 OR 804-115 | | |
| Total Credits | | 16 |

Full-time Plan

First Year

| Fall Term 1 | | Credits |
|----------------|--------------------------------|----------|
| 804-504 | Industrial Math I | 1 |
| 462-506 | Schematics-Inj Mold Setup | 1 |
| 463-500 | Injection Mold Setup Related I | 2 |
| Credits | | 4 |

Spring Term 1

| | | |
|----------------|----------------------------|----------|
| 463-501 | Injection Mold Related II | 2 |
| 664-518 | Automation for Apprentices | 2 |
| Credits | | 4 |

Second Year

Fall Term 1

| | | |
|----------------|------------------------------|----------|
| 419-502 | Pneumatics for Apprentices | 1 |
| 463-502 | Injection Mold Related III | 2 |
| 664-519 | Automation Setup Apprentices | 1 |
| Credits | | 4 |

Spring Term 1

| | | |
|---------|---------------------------|---|
| 463-503 | Injection Mold Related IV | 2 |
|---------|---------------------------|---|

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|----------------------|-------------------------|-----------|
| 419-501 | Apprentice Hydraulics | 1 |
| 414-500 | Electricity-Apprentices | 1 |
| Credits | | 4 |
| Total Credits | | 16 |