



# ILLINOIS VALLEY COMMUNITY COLLEGE

## COURSE OUTLINE

**DIVISION: Workforce Development**

**COURSE: MET 1204 Tooling Processes I**

Date: Spring 2023

Credit Hours: 3

*Complete all that apply or mark "None" where appropriate:*

Prerequisite(s): MET 1203 with a grade of C or better

Enrollment by assessment or other measure?  Yes  No

If yes, please describe:

Corequisite(s): None

Pre- or Corequisite(s): None

Consent of Instructor:  Yes  No

Delivery Method:	<input checked="" type="checkbox"/> Lecture	2 Contact Hours (1 contact = 1 credit hour)
	<input type="checkbox"/> Seminar	0 Contact Hours (1 contact = 1 credit hour)
	<input checked="" type="checkbox"/> Lab	2 Contact Hours (2-3 contact = 1 credit hour)
	<input type="checkbox"/> Clinical	0 Contact Hours (3 contact = 1 credit hour)

Offered:  Fall  Spring  Summer

### **CATALOG DESCRIPTION and IAI NUMBER (if applicable):**

This course covers the fundamentals of press tool design and die making principles. Students develop an understanding of basic die types such as piercing, blanking, and stamping. Emphasis is placed on the above die making principles, with students working in a hands-on environment to produce a series of elementary press tools for secondary die operations.

## **ACCREDITATION STATEMENTS AND COURSE NOTES:**

None

## **COURSE TOPICS AND CONTENT REQUIREMENTS:**

- 1.0 Safety
- 2.0 Die design, principles, terminology, and Classifications
- 3.0 Strips, Blanks, and Clearances
- 4.0 Die Blocks, Strippers, and Punches
- 5.0 Die Fasteners and Die Sets
- 6.0 Types of Presses
- 7.0 Tool steel identification and application

## **INSTRUCTIONAL METHODS:**

Lecture  
Hands on Lab  
Demonstration  
Instructional Video

## **EVALUATION OF STUDENT ACHIEVEMENT:**

Quizzes  
Tests  
Project work  
Attendance

## **INSTRUCTIONAL MATERIALS:**

### **Textbooks**

Industrial Press Inc., Die Design Fundamentals, Third Edition, by Boljanovic and Paquin

### **Resources**

PowerPoint slides

## **LEARNING OUTCOMES AND GOALS:**

### **Institutional Learning Outcomes**

- 1) Communication – to communicate effectively;
- 2) Inquiry – to apply critical, logical, creative, aesthetic, or quantitative analytical reasoning to formulate a judgement or conclusion;
- 3) Social Consciousness – to understand what it means to be a socially conscious person, locally and globally;
- 4) Responsibility – to recognize how personal choices affect self and society.

### **Course Outcomes and Competencies**

1. Care for and use advanced precision measuring tools.
2. Understand the care and advanced safe operation of lathes, milling machines, and surface grinders.
3. Use the above mentioned tools and machines to build complex parts and simple tooling from prints.
4. Display proficient knowledge of tooling design and construction.