ILLINOIS VALLEY COMMUNITY COLLEGE

COURSE OUTLINE

DIVISION: Workforce Development

COURSE: MET-1203 Manufacturing Materials & Processes II

Date: Fall 2024

Credit Hours: 3

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

Prerequisite(s): MET 1202 with a grade of C or better

Enrollment by assessment or other measure? ☐ Yes ☒ No
If yes, please describe:

Corequisite(s): None

Pre- or Corequiste(s): MET 1202 with a grade of C or better

Consent of Instructor: ☐ Yes ☒ No

Delivery Method:

☒	**Lecture**	**2 Contact Hours (1 contact = 1 credit hour)**
☐	**Seminar**	**0 Contact Hours (1 contact = 1 credit hour)**
☒	**Lab**	**2 Contact Hours (2-3 contact = 1 credit hour)**
☐	**Clinical**	**0 Contact Hours (3 contact = 1 credit hour)**
☐	**Online**	
☐	**Blended**	
☐	**Virtual Class Meeting (VCM)**	

Offered: ☒ **Fall** ☒ **Spring** ☐ **Summer**

CATALOG DESCRIPTION and IAI NUMBER (if applicable):
This course is a continuation of MET 1202. In this course, students are exposed to other manufacturing processes not covered in MET 1202, such as: welding, nontraditional machining and latest trends in manufacturing. Students will also have opportunity to do advanced machining and measuring on lathes, mills, and drills.

ACCREDITATION STATEMENTS AND COURSE NOTES:
None

COURSE TOPICS AND CONTENT REQUIREMENTS:
1.0 Shop Safety
2.0 Advanced Measuring Operations
3.0 Advanced Machining Operations
4.0 Jigs and Fixtures

INSTRUCTIONAL METHODS:
Lecture
Demonstration
Hands On Lab

EVALUATION OF STUDENT ACHIEVEMENT:
Quizzes
Tests
Comprehensive Final
Lab projects

INSTRUCTIONAL MATERIALS:
Textbooks
G-W Publisher- Machining Fundamentals, 11th edition

Resources
Power point 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. Perform complicated layout tasks on steel/plastic from various prints and sketches.
2. Care for and use advanced precision measuring tools such as inside micrometers, digital calipers, hole gages, indicators, sine bars, and height gages.
3. Understand the care and advanced operation of basic machine tools such as drill presses, lathes, milling machines and grinders.
4. Use the above-mentioned machines and accurately build complex parts and simple jigs/fixtures off prints.