



ILLINOIS VALLEY COMMUNITY COLLEGE

COURSE OUTLINE

DIVISION: Workforce Development

COURSE: MET 1200 Inspection, Measurement, and Quality

Date: Spring 2023

Credit Hours: 3

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

Prerequisite(s): None

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	3 Contact Hours (1 contact = 1 credit hour)
	<input type="checkbox"/> Seminar	0 Contact Hours (1 contact = 1 credit hour)
	<input type="checkbox"/> Lab	0 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):

Inspection and gaging covered in a concise manner, including many phases of inspection work and their application to present day manufacturing operations. The course covers a variety of manual and automatic measuring devices and gages, their specific function, and specialized techniques of application. The course also analyzes quality systems and the methods and duties of the different types of inspectors.

ACCREDITATION STATEMENTS AND COURSE NOTES:

None

COURSE TOPICS AND CONTENT REQUIREMENTS:

- 1.0 Introduction to Metrology
- 2.0 Systems of Measurement
- 3.0 Scaled and Dialed Instruments
- 4.0 Gage Blocks
- 5.0 Measurement by Comparison
- 6.0 Angle Measurement
- 7.0 Surface Finish Measurement
- 8.0 Instrument Calibration and Repair

INSTRUCTIONAL METHODS:

Lecture and Demonstration
Lab

EVALUATION OF STUDENT ACHIEVEMENT:

Quizzes
Tests
Comprehensive Final
Labs
Group Projects
Skills Tests

INSTRUCTIONAL MATERIALS:**Textbooks**

Cengage- Fundamentals of Dimensional Metrology, 6th edition, Connie L. Dotson

Resources

None

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. Understand the importance and application of Metrology
- 2. Properly inspect, calibrate, repair, and use precision measuring tools
- 3. Understand and apply various Metrology and Quality terms and definitions