



# ESSENTIALS OF INDUSTRY

## VIRTUAL ACADEMY



Available 100% Online

The Essentials of Industry Virtual Academy is a condensed 4-credit online program designed to provide learners with the fundamental skills needed to succeed at roles within a variety of local and regional manufacturing industries.

Completion of this academy earns you the **Quality Technician Certificate** from Northcentral Technical College.

### LEARN HOW TO:

- Understand engineering drawings and specifications
- Utilize and calibrate precision measuring instruments
- Produce gage repeatability studies
- Analyze and understand the costs of quality
- Develop strategies to address non-conforming components

### COURSES INCLUDE

10-623-200	INTERPRETING ENGINEERING DRAWINGS	1
10-623-203	PRECISION MEASURING	2
10-623-119	QUALITY ASSURANCE	1
<b>TOTAL CREDITS</b>		<b>4</b>

**CONTACT YOUR HIGH SCHOOL GUIDANCE COUNSELOR FOR MORE INFORMATION**

# ESSENTIALS OF INDUSTRY VIRTUAL ACADEMY

## COURSE DESCRIPTIONS & OUTCOME



### INTERPRETING ENGINEERING DRAWINGS

**1 CR.**

Explores the foundational skills needed to read and interpret industrial prints. Beginning with the basics, the learner progresses in a logical order through orthographic, pictorial, assembly, section and auxiliary views of products. In addition, you will learn how to interpret part dimensions and tolerances. Emphasis is also placed on title blocks, change blocks and shop notes and symbols. The symbols of geometric dimensioning and tolerancing are introduced.



### PRECISION MEASURING

**2 CR.**

Introduces the importance of metrology in the manufacturing industry. Learners will investigate different measurement systems and procedures used to control measurement processes. Learning activities will include hands-on measuring activities, Gage R&R, and developing calibration procedures. In addition, learners will examine automated metrology and its application in the Smart Manufacturing environment.



### QUALITY ASSURANCE

**1 CR.**

Analyzes the philosophies and strategies the American industry has been focusing on to improve the quality of their products and services. In this learning plan, the learner will explore their personal philosophy on Quality, the cost of quality, total quality management, and nonconforming products and materials.



### QUALITY TECHNICIAN CERTIFICATE

**4 CR.**

The Quality Technician Certificate is designed to prepare learners for entry level positions in the area of quality control and inspection for various manufacturing sectors. Learners will be able to apply the concepts of quality assurance, precision measurement, and interpreting engineering drawings to manufactured products.

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