



Vincennes University

Gene Haas Training and Education Center (HTEC)
Lebanon, Indiana

Industrial Metrology NOW

An Accelerated Training Program for Veterans and Civilians

Goals:

1. To provide high quality training on state-of-the-art equipment to help bridge the Advanced Manufacturing “skills gap”.
2. To provide well-rounded entry level skilled Quality Inspectors to an industry that is in desperate need.
3. To provide opportunities for students to earn industry recognized American Society for Quality Certification.
4. To prepare Veterans and Civilian adult learners for gainful employment as Quality Inspectors / Calibration Technicians.
5. To prepare students for life-long learning and advancement in the field of Quality Control and Assurance.

Description:

The Vincennes University Industrial Metrology NOW program is designed to prepare Veterans and civilian adult learners to become well-rounded entry level Quality Inspectors with upward mobility potential. The curriculum is a combination of Quality Tools and Techniques and extensive hands-on training with inspection equipment ranging from steel scales to computer controlled Coordinate Measuring Machines (CMM). The duration of the training is 15 weeks or 600 hours. College credit is not awarded for this program, but rather it is designed as an accelerated program of study around industry recognized ASQ Certification and NIMS credentials based on skills needed for a career in Quality Inspection and manufacturing.

Eligibility/Admission Policy:

This program is designed for Veteran and Civilian adult learners. Recent high school graduates are also eligible for program enrollment. Entrance requirements include a high school diploma or a GED and completion of a Metrology Aptitude Exam.

Credentials:

Industry Recognized Credentials:

Vincennes University has partnered with the American Society for Quality to link this program with the Certified Quality Inspector certification. Prior to the completion of the program the student will complete the ASQ Certified Quality Inspector examination. Upon passing the exam, the student will receive the Certified Quality Inspector certification upon completion of the program.

Additionally, the National Institute for Metalworking Skills (NIMS) credential: Measurement, Materials & Safety will be earned during the program.

(Earning this credential IS expected for successful completion of course.)

Certificate:

Upon successful completion of the program, in addition to earning the ASQ and NIMS certifications, the trainee will be awarded with a Vincennes University Certificate of Completion for the Industrial Metrology NOW training program.

Facility:

The Vincennes University Industrial Metrology NOW program is recognized by the **American Society for Quality** and is **approved by the Veterans Administration** for training. VU will provide all of the training at the Haas Technical Education Center (HTEC) located in Lebanon, Indiana at the Gene Haas Training and Education Center. The metrology lab contains 2 complete Mitutoyo Coordinate Measuring Machines with both touch and scanning probes and includes 20 offline simulation seats for program development. The lab also has a portable MasterGage CMM arm, optical comparator, digital hardness checker, surface finisher analyzer and over 500 pieces of individual inspection tools and instruments for student use. Additionally, the lab has 24 seats of Minitab 17 and Quality Companion software for statistical data analysis and problem solving.

**Partners:**

The Vincennes University HTEC Gene Haas Training Center is dedicated to providing the highest quality training available for Metrology and related technologies. The center leverages the support of its many manufacturing partners to provide training on the latest technology available. The list of partners includes: Haas Automation, Mitutoyo, American Society for Quality, Minitab, Renishaw, Mastercam, Quality Mill Supply, Zeiss, Lista, , and others. The VU HTEC is also in partnership with Veterans Administration counselors, the Indiana National Guard employment specialists, and the WorkOne in order to help recruit and place students.

Tuition and Fees:

The cost of the program is \$8000.00. This includes all tuition, lab fees, materials, hardware, software, and ASQ and NIMS testing. Textbook cost is \$1,000.00. Gene Haas Foundation Scholarships are available to assist students.

Weekly Schedule: (Times are approximate)

8:00am – Noon	Lecture / Lab	4.0 hours
Noon – 12:30pm	Lunch	0.5 hours
12:30 – 4:30pm	Lecture / Lab	4.0 hours

Total Training Hours

40.0 hours per week for 15 weeks = 600 hours.

Implementation:

The Industrial Metrology NOW program is offered two times per year with starting dates in early February and August. Class size is limited to 12 students per class to maintain the highest quality of training.

Recruitment:

Students will be recruited through industry partner companies, the VA, the Indiana National Guard, WorkOne in Indiana, and its counterpart one-stop employment centers in other states, along with multimedia contact. Ideally, companies will be involved in the candidate selection process from the beginning.

Placement:

Vincennes University will use its own resources along with the resources of its partners, to help trainees to gain full time employment. Ideally, companies will be involved in the candidate selection process up front, and will hire immediately upon graduation.

Program Core Areas

- **Industrial Safety – 8 hours**
- **Applied Technical Mathematics – 40 hours**
- **Introduction to Geometric Dimensioning and Tolerancing (GD&T) – 40 hours**
- **Blueprint Reading – 40 hours**
- **General Machine Shop Processes – 16 hours**
- **Quality Concepts / Q.C. Principles / Statistical Processes – 40 hours**
- **Dimensional Inspection – 180 hours**
- **Calibration – 40 hours**
- **Coordinate Measuring Machine (CMM) Operation and Programming - 180 hours**
- **Basic Non-Destructive Testing (NDT) – 16 hours**



TextBooks:

Juran Quality Handbook
Machinery's Handbook
Dimensional Metrology
Mitutoyo Dimensional Metrology
Geotol Geometric Dimensioning and Tolerancing
Geometrical Dimensioning and Tolerancing – Applications and Inspection
Geotol Blueprint Reading
Certified Quality Inspector Primer

STUDENT POLICIES:

Attendance Policy:

DO NOT MISS CLASSROOM OR LAB TIME

Philosophy of Attendance. The Vincennes University policy is premised upon the notion that students will attend all sessions of the classes in which they are enrolled. This policy supports Vincennes University's philosophy that students benefit most from the people and facilities provided by the citizens of Indiana through proper and adequate class attendance. Consequently, missing class for any reason will be regarded as an absence.

*Students are required to contact the instructor prior to an absence from class. The instructor will determine if the absence will be considered excused or unexcused. If the instructor is not notified prior to the absence, then the absence will automatically be considered unexcused. For whatever reason the absence occurs, the student is responsible for the work missed. Accurate attendance records will be kept and these records will be shared with the student's sponsoring institution and with employers. **Serious attendance issues can result in the student being dropped from the program, the student losing the financial benefits from their sponsoring organization, and the student assuming all financial obligations themselves.***

Graduation Requirements:

In order for a student to earn an Industrial Metrology NOW Certificate of Completion they must complete the 600 hours of training in good standing and earn the following credentials:

Required - American Society for Quality Certification:

(Earning this certification IS required for successful completion of course.)

1. Certified Quality Inspector

Required - NIMS Industry Recognized Credentials:

(Earning this credential IS required for successful completion of course.)

1. NIMS Measurement, Materials & Safety

Readmission Policy:

If a student has to drop out of the program for personal or medical reasons, the student can be readmitted provided they can meet the financial obligations. The Metrology Program Director will determine if any of the candidate's prior course work will be accepted towards meeting the requirements for the new class. If a student was dropped for any other reason, the Metrology Program Director will determine whether or not they will be readmitted based on an assessment of the potential for success of the student.

Refund Policy:

Student drop prior to first day of class and after 1st class: 100%.

After second class 0%.

If a student is expelled or terminated from program: 0%.



INSTRUCTOR CREDENTIALS:

Charles W. (Wes) Shelton

B.S. Mechanical Technology – Indiana State University

M.S. HRD for Business and Industry Training – Indiana State University

American Society for Quality Certified Six Sigma Green Belt

American Society for Quality Certified Quality Engineer

American Society for Quality Certified Quality Auditor

American Society for Quality Certified Quality Technician

American Society for Quality Certified Quality Inspector

14 years Quality Management experience in heavy equipment, closure systems and aerospace manufacturing

20 years Training and Consulting in Quality and Manufacturing