Course Syllabus

Course #: QCT1050 **Course Name: Principles of Inspection & Metrology**

Division: Engineering and Industrial Technologies

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Class Days: **Class Time:**
Location: Classroom: Laboratory:
Credit Hours: **Contact Hours:** **Lab Hours:** **Lecture Hours:**

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Instructor:_____ **Office Location:**
Phone:_____ **Email Address: _____**

Office Hours: TBD
Division Office/Location: Engineering Building **Division Fax:** 419-334-2300
Full-time Contact Person: Jayne Bowersox **Phone(s):** (419) 559-2410

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Course Description:
A study of the principles and methods of precision measurement, testing, and inspection, emphasizing the use of micrometers, vernier calipers, gauges, indicators and surface finish instruments.

Prerequisite(s): None

Corequisite(s): None

Entry Level Skills and Knowledge:

Required Texts, Supplies and Equipment:

1. TEXT: Dotson/Harlow/Thompson, Fundamentals of Dimensional Metrology, fourth Edition, Copyright 2003, Delmar Publishers

2. Calculator with at least the four basic functions plus the square root function.

3. Note paper and pen or pencil highlighter would be beneficial for marking the text for study.

Grading:

Grading basis:

a.	Daily grades (special assignments, tests, in-class participation, classroom exercise and attendance	60%
b.	Laboratory exercises	40%

= A
= B
= C
= D
Below = F

Learning Outcomes:

General Education

1. **Communicate effectively**
2. **Evaluate arguments in a logical fashion**—Competence in analysis and logical argument are explicit learning goals for most general education programs, although these skills go by a variety of names (e.g., critical thinking, analysis, logical thinking, etc.). **Students will be able to demonstrate competence in problem solving in communication, mathematics, and in team settings.**
3. **Employ the methods of inquiry characteristic of natural sciences, social sciences, mathematics, and the arts and humanities**; general education introduces students to methods of inquiry in several fields of study and thereby prepares students to integrate information from different disciplines.

General Education

- Know the background and history of metrology.
- Understand the terms and definitions used in metrology.
- Understand the role of metrology in industrial operations and quality control.
- Understand the levels of accuracy and standards.
- Know how to use the various types of measuring equipment:
    - venires calipers
    - micrometers
    - gauge blocks
    - dial indicators
    - optical comparators
    - electronic instruments
    - pneumatic instruments
    - surface finish instruments
    - go/no-go gauges
    - sine bar
- Know how to care for and maintain measuring equipment.
- Understand and apply gauge and R & R techniques.

Assessment of Student Learning:

Assessment Project and Measurement in course (if any):

Plan of Work:

Week 1
Week 2
Week 3
Week 4
Week 5
Week 6
Week 7
Week 8
Week 9
Week 10
Week 11
Week 12
Week 13
Week 14
Week 15

Course Requirements:

Complete all assignments as required

1. Special assignments may be made during the quarter; these will be collected and graded. Homework will not normally be collected and graded unless specified.

Policies

Course Withdrawing: If for any reason you need to withdraw from this course, be certain that you do so according to College procedure. It is your responsibility to know and follow this procedure. If you simply stop coming to class, without officially withdrawing from the course, your grade is an automatic "F." Please follow official College procedure for withdrawing from this or any course.

College Academic Policies are located in the College Catalog. A copy of the current catalog may be picked up in any of the division offices or admissions. The list of college policies is also available online at https://www.terra.edu/register/Collegecat/policies.asp.

Support Services: The College offers a number of support services to assist in your success in this course and all courses. Among these services are the Writing & Math Center in B105, the Office of Learning Support Services, which coordinates the campus disability services and tutoring programs, the computer labs, and the computers in the atriums.

Any student who feels he/she may need an accommodation based on the documentation of a disability should contact the Office of Learning Support Services privately to discuss his/her specific issues. Please contact the OLSS at (419) 334-8400 X 208 or visit 100 Roy Klay Hall (Building A) to coordinate reasonable accommodations.

If you have a documented disability and are receiving academic accommodations through the Office of Learning Support Services, please schedule a meeting with your instructor in a timely manner so that we may discuss how these services will be arranged.

Tutoring services are available to students beginning the second week of every quarter. Students requesting tutoring services should obtain a tutor request form from the OLSS in 100 Roy Klay Hall (Building A) or online at the Terra website. Please note that instructor verification and acceptance of the Student Learner Agreement is necessary for all tutoring requests. All requests should be submitted to 100 Roy Klay Hall (Building A).