

Piedmont Technical College Course Syllabus

COURSE INFORMATION

Course Prefix/Number: MTT 143

Title: Precision Measurements

Responsible Division: Industrial/Engineering

Last Day to Withdraw from this Course: For the last date to withdraw from this course, consult the current *Student Calendar*.

Course Description:

For course, credit hour, pre-requisite(s) and co-requisite(s) information, visit the Detailed Course Information page: www.ptc.edu/courses/mtt143.

Textbook and Other Materials:

For textbook information and additional required and/or supplemental materials, visit the [college bookstore](http://www.ptc.edu/bookstore) (www.ptc.edu/bookstore).

Proctored Examinations:

Proctored examinations for distance learning courses taken at non-PTC campuses may require a proctoring fee for each exam taken.

COURSE POLICIES

Course policies are available online through the *Academic Catalog* and *Student Handbook*. Visit the [Course Policies page](http://www.ptc.edu/syllabus/policies) (www.ptc.edu/syllabus/policies) for a detailed list of important policies and more information.

GRADE POLICY

Detailed grading policy information can be found on the [Grading Policy webpage](http://www.ptc.edu/grading-policy) (http://www.ptc.edu/grading-policy). Final grade appeal information is available in the [Academic Catalog](http://www.ptc.edu/catalog/) (http://www.ptc.edu/catalog/).

ACCOMMODATIONS

Accommodations for ADA:

Information is available on the [Student Disability Services webpage](http://www.ptc.edu/ada) (<http://www.ptc.edu/ada>).

RATIONALE

Why do I need this course?

Machines have been developed which are capable of producing work pieces to extremely fine tolerances. Measurement has assumed a very important role in machine shop and manufacturing.

Any job that requires accuracy must require a good set of measuring tools to confidently measure lengths, widths, diameters and angles. Even a small miscalculation can make a difference in the appearance or operation of the finished work piece. Improperly measured work pieces will not fit together smoothly when assembled. A base assortment of rules, gages, micrometers, calipers, dial indicators and other precision measuring tools is a must for any machine shop. A knowledge of how to properly use and care for measuring equipment is a priority.

PROGRAM INFORMATION

For program information including required courses, program learning outcomes, gainful employment information and advisement information, refer to the Academic Program webpage. Go to [Academics](http://www.ptc.edu/academics) (<http://www.ptc.edu/academics>), select your program, and then select Credentials Offered.

COURSE STUDENT LEARNING OUTCOMES

Upon successful completion of this course and/or clinical, each student will be able to:

- Demonstrate the use practical measuring equipment.
- Evaluate the functionality of equipment by using hands on experiences.
- Apply basic mathematical reasoning skills associated with measuring equipment.

- Develop the operational skills as it applies to equipment in conjunction with other MTT related classes.

GENERAL EDUCATION COMPETENCIES

Piedmont Technical College General Education Competencies for All Graduates:

This course may address one or more of the following General Education Competencies (assessment will be stated when applicable):

Communicate effectively.

Assessment:

Explain the function of various measuring tools.

Apply mathematical skills appropriate to an occupation.

Assessment:

Use proper mathematical skills during the process of inspecting course required projects.

Employ effective processes for resolving problems and making decisions.

Assessment:

Assess the measured outcomes and analyze results to determine the acceptability of the required project.

Demonstrate the basic computer skills necessary to function in a technological world.

Assessment:

N/A

To validate proficiency in the general education competencies, students in some programs will be tested using Work Keys.