Department:

Engineering Graphics & Technologies

Course Description:

This course covers the basic principles of operations and scale, with emphasis on the order of operations. The course reviews the use of decimal and fractional operations and also covers the use of scales and how they are read and applied.

Course Competencies:

Upon completion of the course, the student should be able to:

1. Measure with precision and calculate possible error
2. Define tolerances, clearance, and interference
3. Read English micrometers
4. Read metric micrometers
5. Add common fractions and mixed numbers
6. Subtract common fractions and mixed numbers
7. Multiply common fractions and mixed numbers
8. Divide common fractions and mixed numbers
9. Perform combined operations of common fractions and mixed numbers
10. Round decimal fractions and equivalent decimal and common fractions
11. Add and subtract decimal fractions
12. Multiply decimal fractions
13. Divide decimal fractions
14. Use powers and exponents
15. Use a calculator to determine roots
16. Use a table of decimal equivalents and combined operations of decimal fractions

Course Content:

A. Linear Measurements in English and Metric Scales
B. Basic Mathematical Operations of Common Fractions and Decimals

Learning Assessments:

Competencies will be assessed by assignments, case problems, quizzes, chapter tests, hands-on projects, lab assignments, a midterm test, and a final test. The tests may be in the objective format or in a problem solving format.
Instructional Materials:


Guidelines for Requesting Accommodations Based on Documented Disability or Medical Condition

It is the intention of Highland Community College to work toward full compliance with the Americans with Disabilities Act, to make instructional programs accessible to all people, and to provide reasonable accommodations according to the law.

Students should understand that it is their responsibility to self-identify their need(s) for accommodation and that they must provide current, comprehensive diagnosis of a specific disability or medical condition from a qualified professional in order to receive services. Documentation must include specific recommendations for accommodation(s). Documentation should be provided in a timely manner prior to or early in the semester so that the requested accommodation can be considered and, if warranted, arranged.

On-Campus Students: At enrollment, any on campus student may complete a form that will allow them to self-identify any disability.

Off-Campus Regional Students: Self-identify your disability and accommodation needs with the Regional Coordinator and/or instructor, preferably prior to the first class meeting.

Online Students: Self-identify your disability and accommodation needs by contacting the Disabilities Coordinator. Students must provide their own programs to allow accessibility on their home computer.

Any student may also identify their disability by completing an online form located on the HCC homepage under Students Services/Resources/Disabilities. Questions should be directed to the Disabilities Coordinator.