Department:

Engineering Graphics & Technologies

Course Description:

This course covers the principles of basic geometric construction: lines, arcs, circles, angles, and the relationships between geometric forms. The course will focus how these principles apply to graphic construction.

Course Competencies:

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

1. Add, subtract, multiply, and divide angles in terms of degrees, minutes, and seconds
2. Measure angles with a simple protractor
3. Determine unknown angles in geometric figures using the principles of opposite, alternate interior, corresponding, parallel, and perpendicular angles
4. Identify different types of triangles
5. Identify corresponding parts of triangles
6. Identify similar triangles and compute unknown angles and sides
7. Solve problems by using geometric principles which involve chords, arcs, central angles, perpendiculums, and tangents

Course Content:

A. Geometry: history, definitions, figures
B. Definitions, properties, and types of angles
C. Measuring angles
D. Definitions and basic operations of perimeters and areas
E. Definitions and properties of circles
F. Definitions and properties of complex figures

Learning Assessments:

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

Instructional Materials:

ISBN: 9781401805173
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.