

Department:

Engineering Graphics and 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. Understand geometry: its history, definitions and figures.
2. Understand the definitions, properties, and types of angles.
3. Develop the ability to measure angles.
4. Understand the definitions and basic operations of perimeters and areas.
5. Understand the definitions and properties of circles.
6. Understand definitions and properties of complex figures.

Course Content:

- A. Add, subtract, multiply, and divide angles in terms of degrees, minutes, and seconds
- B. Measure angles with a simple protractor
- C. Determine unknown angles in geometric figures using the principles of opposite, alternate interior, corresponding, parallel, and perpendicular angles
- D. Identify different types of triangles
- E. Identify corresponding parts of triangles
- F. Identify similar triangles and compute unknown angles and sides
- G. Solve problems by using geometric principles which involve chords, arcs, central angles, perpendiculars, and tangents

Learning Assessments:

Competency in this course will be assessed by written and oral assignments, quizzes, exams, and demonstration of practical skills.

Instructional Materials:

No Textbook

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.

In order to begin the process all students **must** complete the “Disabilities Self-Identification Form” on our [Disability Services website](#).

This form can also be accessed at the Highland Community College homepage under Students Services/Student Resources/Disability Service or by contacting the Disabilities Coordinator.

A Note on Harassment, Discrimination and Sexual Misconduct

Highland Community College seeks to assure all community members learn and work in a welcoming and inclusive environment. Title VII, Title IX, and College policy prohibit harassment, discrimination and sexual misconduct. Highland Community College encourages anyone experiencing harassment, discrimination or sexual misconduct to talk to report to the Vice President for Student Services, the Human Resources Director or complete an [online report](#) about what happened so that they can get the support they need and Highland Community College can respond appropriately.

There are both confidential and non-confidential resources and reporting options available to you. Highland Community College is legally obligated to respond to reports of sexual misconduct, and therefore we cannot guarantee the confidentiality of a report, unless made to a confidential resource. Responses may vary from support services to formal investigations. As a faculty member, I am required to report incidents of sexual misconduct and thus cannot guarantee confidentiality. I must provide our Title IX coordinator with relevant details such as the names of those involved in the incident. For more information about policies and resources or reporting options, please review our [Equity Grievance Policy](#).