

**J. Sargeant Reynolds Community College  
Course Content Summary**

**Course Prefix and Number:** EGR 135

**Credits:** 3

**Course Title:** Statics for Engineering Technology

**Course Description:**

Introduces Newton's Laws, resultants and equilibrium of force systems, analysis of trusses and frames. Teaches determination of centroid, distributed loads and moments of inertia. Covers dry friction and force systems in space. Lecture 3 hours, Total 3 hours

**General Course Purpose**

Engineering Mechanics course for AAS Engineering Technology majors.

**Course Prerequisites:**

MTH 115

**Course Objectives**

Upon completing the course, the student will be able to:

- a. Solve for unknown forces in a variety of situations.
- b. Know how to solve centroid and the moment of inertia.
- c. Solve for shear and bending forces.
- d. Solve problems involving friction.

**Major Topics to be Included**

- a. Vector
- b. Components
- c. Equilibrium
- d. Rigid bodies
- e. 3-D forces
- f. Couples
- g. 3-D equilibrium
- h. Centroid
- i. Distributed loads
- j. Trusses
- k. Frames and machines
- l. Shear and bending
- m. Friction
- n. Moment of inertia

**Effective Date of Course Content Summary:** August 2008