

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

**Course Prefix and Number:** CIV 160

**Credits:** 3

**Course Title:** Transportation Engineering

**Course Description**

Presents the practical application of transportation design including administration, location studies, traffic surveys, alignment drainage, intersection and interchange, pavement types and pavement design. Lecture 3 hours per week.

**General Course Purpose**

An introduction to the principles of road and highway design in civil engineering

**Course Prerequisites/Corequisites** (Entry-level competencies **required** for enrollment)

Corequisite: MTH 115 or instructor's approval

**Course Objectives**

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

- a. Study the government activities and achieve an understanding of government control in transportation
- b. Study the planning and design techniques for the 5 modes of transportation including their terminal facilities

**Major Topics to be Included**

- a. Government activity and administrative structures
- b. Operation and control of vehicles
- c. Land transportation facilities design (highway, railway and pipeline)
- d. Transportation studies and planning
- e. Water transportation facilities design
- f. Air transportation facilities design

**Effective Date of Course Content Summary:** February, 2009