

Course Description: CVEEN 5-6530 Quantitative Methods in Transportation Operations

Offered Autumn

Catalog Data

5530 Quantitative Methods in Transportation Operation (3) Meets with URBPL 5710, CVEEN 6530. Prerequisite: CVEEN 3520 or URBPL 3250.

Quantitative methods in transportation studies-operations research techniques, linear programming, forecasting, queuing theory. Flow optimization algorithms.

Textbook

Anderson, Sweeney & Williams, An Introduction to Management Science, West, Seventh Edition 1994.

Coordinator: Peter T. Martin

Goals

Transportation studies encompass a wide variety of disciplines. This course has been designed to provide you with an insight into a variety of techniques of quantitative analysis. The learning should provide you with a sound understanding of the role of applied mathematical techniques plays in the decision making process.

Prerequisites

CVEEN 3520 or instructor consent

Topics

- Statistical Methods
- L.P Graphical Method
- Simplex method
- T, A & S Problems
- Special Project Review
- Network Models
- Queuing Models
- Forecasting
- Time Series Analysis

Computer Usage

Spreadsheet applications of

- linear programming
- statistical methods
- queueing models
- forecasting
- time series analysis

Course Content

The syllabus matter comes from the fields of Statistical Analysis, Operational Research and Management Science.