

## CEN 6405 Computer Performance Modeling

**Credits:** 3 credits

**Text book, title, author, and year:** (1) The Art of Computer Systems Performance Analysis, by Raj Jain.  
(2) Selected articles and papers are posted on the course we site

**Reference materials:** N/A

### **Specific course information**

**Catalog description:** Use of software packages such as Weka for data validation, description and analysis of statistical models used in computer science and software engineering.

**Prerequisites:** STA 4821 Stochastic Models for CS or an equivalent course. CEN 6405 can be used as a technical elective in all CS and CE graduate programs.

**Specific goals for the course:** To enable students to understand basic concept of performance modeling.

### **Brief list of topics to be covered:**

1. Introduction - the art of performance evaluation
2. Measurement techniques and tools
3. Summarizing measured data
4. Comparing systems using sample data
5. Simple linear regression models
6. Other regression models
7. Introduction to experimental design
8. One-factor experiments
9. Two-factor full factorial design
10. Case studies