

Syllabus
ESE 504: Performance Evaluation
Fall 2017

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Course Objective: To give students an in depth knowledge of performance evaluation for scheduling, computer and telecommunication networks.

Two Texts by Prof. Robertazzi (both from Springer): (1) Computer Networks and Systems: Queueing Theory and Performance Evaluation, 3rd edition, 2000, (2) Networks and Grids: Technology and Theory, 2007 (chapter 5 "Divisible Load Modeling for Grids" only, an electronic copy of chapter 5 is available from springerlink.com for about \$30).

Topic 1: Divisible Load Scheduling Modeling and Solutions (chapter 5 Networks and Grids)

Topic 2: Amdahl's and Other Laws

The following five topics are from the Computer Networks and Systems book.

Topic 3: Transient and M/G/1 queues (chapter 2)

Topic 4: Networks of Queues (chapter 3)

Topic 5: Numerical Solution of Models (chapter 4)

Topic 6: Stochastic Petri Nets (chapter 5)

Topic 7: Network Traffic Modeling (chapter 7 [only in 3rd edition])

Grading:

Exam 1: 25%, Exam 2: 25%, Portfolio: 20%, Projects (two) 15% each ---There is no final.

The portfolio is a collection of four original problems and solutions (not from any source) that students create. There should on Amdahl problem, one divisible

load scheduling problem and two queueing problems. Extra credit is possible for well done portfolios.

Note: *If you have a physical, psychological, medical or learning disability that may impact your ability to carry out assigned course work, I would urge you to contact the staff of Disabled Student Services (DSS) at 631-632-6748. DSS will review your concerns and determine what accommodations are necessary and appropriate. All information and documentation of disability are confidential.*