

Final Syllabus
March 4, 2003

Date	Speaker	Topic / Paper
January 15	rek	Introduction, Networks History
January 22	rek	Sliding Windows Congestion Control
January 29	rek rek	<i>“Random Early Detection Gateways for Congestion Avoidance”</i> by Floyd and Jacobson <i>“Tuning RED for Web Traffic”</i> by Christiansen et al.
February 5	Abhijit Pandey Preeti Phadnis	<i>“Core-Stateless Fair Queueing: Achieving Approximately Fair Bandwidth Allocations in High Speed Networks”</i> by Stoica, Shenker, and Zhang <i>“The War between Mice and Elephants”</i> by Guo and Matta
February 12	Scott McLaren Rob Elkind	<i>“Promoting the Use of End-to-End Congestion Control in the Internet”</i> by Floyd and Fall <i>“A Study of Active Queue Management for Congestion Control”</i> by Firoiu and Borden
February 19	rek Chris Dion	<i>“Analysis and Design of an Adaptive Virtual Queue (AVQ) Algorithm for Active Queue Management”</i> by Kunniyur and Srikant <i>“Congestion Control for High Bandwidth-Delay Product Networks”</i> by Katabi, Handley, and Rohrs
February 26	rek Abhijit Pandey	<i>“Improving the Performance of Reliable Transport Protocols in Mobile Computing Environments”</i> by Caceres <i>“End-to-End Bandwidth Estimation in TCP to Improve Wireless Link Utilization”</i> by Mascolo et al.
March 5	Preeti Phadnis Chris Dion	<i>“Discriminating Congestion Losses from Wireless Losses using Inter-Arrival Times at the Receiver”</i> by Biaz and Vaidya <i>“A Performance Comparison of Multi-Hop Wireless Ad Hoc Network Routing Protocols”</i> by Broch et al.
March 12	Scott McLaren Rob Elkind Abhijit Pandey	<i>“The Impact of Multihop Wireless Channel on TCP Throughput and Loss”</i> , by Fu et al. <i>“Proxy-based TCP-Friendly streaming over mobile networks”</i> by Huang et al. <i>“Beyond the Perimeter: the Need for Early Detection of Denial of Service Attacks”</i> by Haggerty, Shi, and Merabti
March 19	Preeti Phadnis Rob Elkind	<i>“Using Overlays to Improve Network Security”</i> by Keromytis, Misra and Rubenstein <i>“A Methodology for Analyzing the Performance of</i>

		Authentication Protocols ” by Harbitter and Menasce
March 26	Scott McLaren Chris Dion	“Defending against Flooding-Based Distributed Denial-of-Service Attacks: A Tutorial” by Chang “Hash-Based IP Traceback” by Snoeren et al.
April 2	Abhijit Pandey Preeti Phadnis Chris Dion	“Distributed Priority Scheduling and Medium Access in Ad Hoc Networks” by Kanodia et al. “Supporting Differentiated Services in MPLS Networks” by Andrikopoulos and Pavlou “Domain and Type Enforcement Firewalls” by Oostendorp et al.
April 9	Scott McLaren Rob Elkind	“Controlling High Bandwidth Aggregates in the Network” by Mahajan et al. “Interposed Request Routing for Scalable Network Storage” by Anderson et al.
April 16	Last class	Final Exam
April 23		Final Project Due