

Course Content

Course Title (English)	Network Planning and Management
Course Title (Chinese)	網路規劃與管理
Credit	3
Instructor	Prof. Zsehong Tsai 蔡志宏 教授
Outline	<ol style="list-style-type: none">1. Network Performance Analysis with Queueing Theory<ol style="list-style-type: none">1.1. Review of Markov Chain Theory1.2. Review Basic Queueing System: M/M/1, Markovian Queue1.3. Properties in Queueing Systems: Time Reversibility, Mean Value Analysis1.4 Open Queueing Network1.5 Closed Queueing Network1.6 Switch Modeling: Input queueing and Output queueing1.5 Flow Control Models: Leaky Bucket regulator and QoS Scheduler 2. Network Planning<ol style="list-style-type: none">2.1 Routing in Wide Area Packet Networks2.2 Optimal Routing and Topology Design2.3 Dimensioning in Circuit Switched Networks2.4 Access Network Design2.5 Case studies in Network Design 3. Network Management Framework and Systems<ol style="list-style-type: none">3.1 TCP/IP Network Management: SNMP and CMIP3.2. Bandwidth management and QoS Control

	3.3 Network Service Management
Goal	提供修課同學於網路效能分析, 網路架構規劃, 最佳化設計及網路管理之基礎訓練
English Teaching	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
Teaching Material	<input checked="" type="checkbox"/> English <input type="checkbox"/> Chinese