CS6385 - Algorithmic Aspects of Telecommunication Networks

CS 6385 (TE 6385) Algorithmic Aspects of Telecommunication Networks (3 semester credit hours) This is an advanced course on topics related to the design, analysis, and development of telecommunications systems and networks. The focus is on the efficient algorithmic solutions for key problems in modern telecommunications networks, in centralized and distributed models. Topics include: main concepts in the design of distributed algorithms in synchronous and asynchronous models, analysis techniques for distributed algorithms, centralized and distributed solutions for handling design and optimization problems concerning network topology, architecture, routing, survivability, reliability, congestion, dimensioning and traffic management in modern telecommunication networks. Prerequisites: CS 5343 and CS 5348 and ENGR 3341 or equivalent. (3-0) Y