**Course Topics**

**EEE 559: Wireless Networks**

**Catalog Description:** Design principles of cellular networks. Multiple access control protocols for wireless systems. Wireless routing and TCP/IP. Mobile management. Call admission control and resource allocation. Wireless security. Future-generation wireless networks.

**Prerequisite:** Engineering Graduate Student. A previous course in

random signal theory or an equivalent class is required to be successful in this class.

**Course Topics:**

* Overview of wireless communication networks and protocols
* The cellular concept: system design fundamentals
* Brief introduction to wireless physical layer fundamentals
* Multiple access control protocols for wireless systems
* Wireless networking (routing/rerouting, wireless TCP/IP)
* Mobility management
* Call admission control and resource allocation
* Revolution/evolution towards future generation wireless networks
* Overview of wireless mesh networks, mobile ad hoc networks and wireless sensor networks
* Wireless security
* Selected hot topics such as full duplex, cognitive radio and RFID