Computer Engineering (CP)

Courses

CP 431. Network Security. 3 Credits.
Topics include security for networked and internetworked computer systems. It examines secrecy, integrity, and other information assurance objectives in terms of high level policy and presents security services used to address those requirements. Selection and management of cryptographic algorithms and keys to achieve network security objectives will be addressed. Network security architectures, including public key infrastructures and their use of directory services, are examined in terms of systems able to insure that critical security functions are protected from unauthorized modification, are correct, and are always invoked. Access control in networked systems is examined. A review of past and current security architectures will be conducted. Topics include security peripherals for cryptography and authentication, the cascade problem, guards and filters. Laboratory will be used to introduce students to a variety of security-related technologies including discretionary access controls, mandatory access controls in both low and high assurance systems, identification and authentication protocols and database technology in trusted systems. Classroom 3 hours.