**SYSM6328 - Computer and networks systems security**

**SYSM 6328** Computer and networks systems security (3 semester credit hours) This course is a comprehensive study of security principles and practices for computer and network systems. Topics to be covered include fundamental concepts in computer and network security and common attacks and attacking techniques on computer systems and networks. Practical security policies, defense strategies, and mechanisms, as well as fundamentals of cryptographic tools will be discussed. Defense techniques such as secured protocols, authentication, access control, and network intrusion detection will also be covered. Hands-on computer and network security labs using virtual machines will be used to enhance students' learning. Prerequisite: An undergraduate course on operating systems (e.g. **CS 4348** or **SE 4348**) and instructor consent required. (3-0) Y