

# MSCS3804 : Cyber Security and Information Assurance

This course covers vital information assurance and computer security principles as applied to computer systems and organizational information systems. Information assurance principles such as availability, integrity, and confidentiality are applied strategically to ensure the integrity of data and information. The complex concepts of data privacy, data security, and the relationship of security to organizational computer systems are integral to this course. Many facets of computer security such as integrated circuit security, physical security, personnel security, systems security, and operations security are discussed and related directly to information assurance principles. The concepts of risks, threats, and vulnerabilities as applied to computational systems are covered as well as the mitigation them through various forms of software and computer technologies in a defense in depth structure. The course also includes detailed analysis of cyber security as a management as well as a technological function. It also applies cyber security to myriad scientific, technological, and engineering disciplines as an integrated component of their information and intellectual property systems.

**Credits** 3