Introduction to Cyber Security

The threat of cyber-attacks is a reality all organizations must prepare for and understand how to best mitigate. This course will introduce you to the wide range of potential threat actors, potential threat vectors and potential targets. Explore how data can be covertly ex-filtrated using functionality built-in to many contemporary mobile technologies or how data outsourced to the cloud can be secured.

The primary objective of this session is to develop a proactive approach to cyber security by understanding the cyber threat landscape, how best to assess and mitigate cyber threats and leveraging different solutions (e.g. forensic technique, big data and behavioral analytics) to better protect against these types of growing threats, regardless of your position and department within your organization.

Course Topics

- Introduction to the field of Cyber Security: current topics, trends and implications
- Understanding the cyber threat landscape:
  - Potential threat actors
  - Potential threat vectors
  - Potential targets
- Mitigation strategies to address these threats within an organizational setting

Learning Objectives

- Review the cyber threat landscape
- Learn about and evaluate cyber protection and mitigation strategies including big data, behavioral analytics and forensic techniques
- Evaluate different cyber solutions for your own work environment and organization
- Develop cyber security skills through in-class practice examples and exercises

Related Courses

- Introduction to Data Analytics
- Advanced Data Analytics

Instructor

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Prior to starting his Cloud Technology Endowed Professorship at UTSA, Choo spent five years working for the University of South Australia, and five years working for the Australian Government Australian Institute of Criminology. Choo's areas of research include big data analytics, cyber security and digital forensics. His research has been widely cited, including in government reports of the Australian Government, United Nations Office on Drugs and Crime (UNODC), U.S. CRS Report for Congress (Prepared for Members and Committees of Congress), International Centre for Missing & Exploited Children, International Telecommunication Union (ITU), and UK Home Office.