About this course

This course will provide basic and comprehensive understanding of the problems of information assurance (IA) and security, possible solutions to these problems, especially the security of information on computers and networks. This course will focus on the IA technology as well as IA policy, management, legal and ethical issues.

Specific topics covered include:

● **IA Basics**: Overview, security and privacy principles and strategies, mission assurance, physical and personal security, formal methods; contingency and disaster recovery planning.
● **IA Management**: IA policies, certification and accreditation, authentication protocols and access control, administrative security controls; risk analysis and management.
● **IA in Information System and Application Development**: IA in outsourcing, open-source software, health-care, service-based and cloud computing.
● **IA and Social Aspects**: Laws and regulations related to IA and security, legal and ethical issues; IA in social media.

Required prior knowledge and skills

● Knowledge of information systems, computer networks and their operations

Learning Outcomes

*Learners completing this course will be able to:*

● Have basic and comprehensive understanding of the problems of information assurance (IA) and security
● Understand possible solutions to these problems, especially the security of information on computers and networks

Estimated Workload/Time Commitment Per Week

15 - 20 hours per week
Stephen S. Yau, Ph.D.

Professor Stephen S. Yau joined ASU in 1994. He is a professor in the School of Computing, Informatics, and Decisions Systems Engineering (CIDSE). Formerly, he was a professor and chair of the Department of Computer and Information Sciences at the University of Florida from 1988 to 1994. In 1961, he joined the faculty of Northwestern University in Evanston, Illinois, and later became the Walter P. Murphy Professor and Chair of the Department of Electrical Engineering and Computer Science. He has published more than 210 journal and conference papers and his research has been supported by NSF, AFRL, ONR, ARO, NIH and companies including Hitachi and Fujitsu.