

# The Center for Infrastructure Assurance and Security

## Introduction to Cyber Security Assessment and Risk Management

### About Us

The CIAS was formally launched in 2001 through a cooperative effort of representatives from industry, government, and academia. We are designed to leverage the Infrastructure Assurance and Security (IAS) strengths resident in San Antonio, Texas as part of the solution to the nation's Homeland Security.

With a grant from the Department of Homeland Security's Office of Training and Exercise Integration Secretariat/Training Operations (TEI/TO), formally the Grants and Training (G&T) Training and Education Division (TED), the CIAS has developed a robust set of Security Training courses designed to address cyber security issues from the beginner to the IA professional. Our focus is on assisting states and communities to prevent, detect, respond to and recover from cyber security incidents.

For more information about the CIAS, please visit our web site:  
<http://www.utsa.edu/cias>

### Contact

Jenine Stevenson  
Program Coordinator  
210.458.2185  
210.632.6597  
[Jenine.Stevenson@utsa.edu](mailto:Jenine.Stevenson@utsa.edu)

### Overview

This 5-day lecture and hands-on training course provides an introduction to the basic concepts and methodologies of cyber security assessment and risk management. Lectures cover methodologies, techniques, and tools for identifying system and network vulnerabilities, while the practical exercises reinforce the concepts and provide experience in the use of security assessment tools. Students attending this course receive a Certificate of Completion.

### Audience

Professionals working in system, security, and network administration or engineering who need to fill gaps in their understanding or are new to security assessments and risk management should attend.

### Prerequisites

Computer literacy is required. Students should be familiar with a windowed Graphical User Interface (GUI) computing environment. Some knowledge of system administration, Unix and Windows Operating Systems, networking and TCP/IP is beneficial.

### Course Materials

Lecture, practical exercises, and reference materials are provided.

### Course Contents

- Operating Systems Overviews
- Network and TCP/IP Overview
- Assessment Planning and Coordination
- Information Gathering and Reconnaissance
- Enumeration
- Scanning and Spoofing
- War Dialing and Telephone Systems
- Vulnerability Scanning
- Assessing Applications
- Sniffing and Session Hijacking
- Buffer Overflow Attacks
- Password Cracking
- Wireless Attacks and Security
- Collecting Results and Reporting
- Risk Management Methodologies
- Other Applicable Topics