

Cybersecurity Introduction 2025

Course Outline and Provider Qualifications

Exchange Analytics Cybersecurity Introduction course has been developed to heighten your understanding of Cybersecurity risks, trends, requirements, and best practices. Leading cybersecurity expert Bob Bigman, who spent several decades dealing with cybersecurity matters at the U.S. Central Intelligence Agency, including approximately 15 years as its Chief Information Security Officer, shares his knowledge and experience of cybersecurity awareness and diligence in a series of videos included in this course.

- I. The Importance of a Good Cybersecurity Program
 - a. Cybersecurity Program Objectives
 - b. Cybersecurity Challenges: Increasingly Sophisticated Cyber Activity
 - c. Cybersecurity Challenges: Human Behavior
 - d. Participation by Everyone
 - e. Characteristics of a Strong Cybersecurity Program
- II. Regulatory Requirements
 - a. CFTC
 - b. FINRA
 - c. NFA
 - d. SEC
- III. Cybersecurity Risks
 - a. Common Cyber Risks
 - i. Insecure Passwords
 - ii. Viruses, Worms & Trojans
 - iii. Spyware
 - iv. Spoofing
 - v. Lost, Stolen or Obsolete Hardware
 - vi. Stolen Identification
 - vii. Physical Access to Systems
 - viii. Remote Access
 - ix. Keystroke Logger
 - x. Credential Recycling
 - b. Business Email Compromise
 - c. Ransomware
 - d. 7 Types of Cyber Attacks
- IV. Prepare & Prevent
 - a. Computer Security
 - b. Device Management

- c. Mobile Devices
- d. System Administration Security and Role Segregation
- e. Implementing Non-Technical Controls
- f. Implementing Technical Controls
- g. Managing Social Media Risks
- h. Artificial Intelligence Risks
- i. Using Artificial Intelligence - Regulator Expectations
- j. AI Risks
 - i. Associated with AI used by Cyber-Criminals
 - ii. Associated with AI used by Financial Firms
- V. Responding to a Cyber Incident
 - a. Best Practices: Reporting and Responding to a Cyber Incident
 - b. Responding to a Cyber Incident: Identification
 - c. Responding to a Cyber Breach: Investigate, Contain & Restore
- VI. Optional Learning - Managing Cyber Programs at Small Businesses
- VII. Quiz

Provider Qualifications - About the Authors

Joseph Adamczyk served as the author. Prior to his affiliation with Exchange Analytics, he served as the Chief Compliance Officer for Options Clearing Corporation (OCC). Mr. Adamczyk oversaw the firm's compliance risk monitoring and governance programs, advised the board of directors and staff on compliance and regulatory requirements, and interacted with federal regulators on compliance, risk, and examination matters. Before joining OCC, Mr. Adamczyk worked at CME Group where he served as the Managing Director & Associate General Counsel overseeing the company's non-U.S. legal staff and activities. In this role, he interacted with regulators from around the globe. He also handled CME Group's interactions with U.S. regulators and other authorities on cybersecurity and technology controls, requirements, cyber incident response, and examinations. At CME Group, Mr. Adamczyk also served as the Global Head of Investigations and Enforcement in the Market Regulation Department. In that role, he oversaw teams responsible for monitoring, investigating, and enforcing the CME Group exchanges' trade practice rules and other requirements. Mr. Adamczyk received his MBA from the University of Chicago, law degree from Loyola University Chicago School of Law, and undergraduate degree from DePaul University. He has no regulatory actions or other disciplinary history.

Robert Bigman served as the subject matter expert. He is the president of 2BSecure, a privately held information security consulting company. In this role, Mr. Bigman provides direct cyber consulting services to CISOs, CIOs, CTOs, CDOs and government and business technology leaders. Consulting services include cyber security risk assessments, cyber security program reviews, programmatic and technical security recommendation, briefings/training and policy/standards development.

Mr. Bigman is a former Chief Information Security Officer (CISO) for the Central Intelligence Agency (CIA). Mr. Bigman retired from the CIA after serving a thirty-year distinguished career. Recognized as a pioneer in the field of classified information protection, Mr. Bigman developed technical measures and procedures to manage the United States' most sensitive secrets. As an information security trailblazer, Mr. Bigman participated in developing security measures for Government computers well before the commercial industry found the internet. He then developed creative solutions to allow the CIA to use the internet to further its mission without exposure. With twenty-five years of experience, Mr. Bigman worked in every area of information and data security, the last fifteen years as the CIA's CISO. As the CISO, Mr. Bigman managed a large organization of technical and program officers responsible for the protection of all CIA information. His responsibilities included: cryptography, information security policy/processes, standards and requirements, testing and network defense/response. Mr. Bigman also served as the CIA's designated officer for all discussions with the information security industry and its commercial partners. Mr. Bigman has contributed to almost every

intelligence community information security policy/technical standard and has provided numerous briefings to the National Security Council, Congress and presidential commissions. Mr. Bigman's earlier assignments at the CIA included participation in the technical design of the intelligence community's first counterterrorism database and delivery of the CIA's first secure TCP/IP local and wide area network for the Counterintelligence Center. In recognition of his expertise and contributions, Mr. Bigman has received numerous CIA and Director of National Intelligence awards.

Mr. Bigman is now an independent consultant and works with U.S. Government, foreign governments and top 50 Fortune corporations, helping them both build productive cyber security programs and successfully resist attacks from the most sophisticated hackers. Examples of his engagements include working with: financial institutions to re-engineer their network and desktop defenses to reduce the risk of sophisticated (i.e., Nation-State) hacking; a large ISP to reorganize their entire corporate cyber security program and develop new program charters and technical security policies; a medical device manufacturer to ensure that their in-body monitoring devices exhibit the highest level of system, application and network security; and a customer service organization to ensure that their internet/web services both satisfy security and privacy regulations and adequately protect sensitive consumer privacy information.

Mr. Bigman also provides cyber security program and technical training to global government and private organizations. His training activities include cyber awareness programs for boards of directors, cyber threats/vulnerabilities and secure design requirements briefings for IT system architects/engineers, cyber security policy training for IT security professionals and general cyber security training for all employee levels/types within an organization. Mr. Bigman is also the author of a comprehensive course entitled: "Building a High Performance Cyber Security Program." Mr. Bigman contributes to a number of cyber security blogs and frequently appears on cyber security media outlets including web pod cast, audio and television. His company, 2BSecure, is located in Rockville, Maryland and additional information is available at <http://2bsecurellc.bpweb.com>.

Cyber Advisory Group

This course was reviewed by the Cyber Advisory Group. The Exchange Analytics (XA) Cyber Advisory Group assists management of XA with regard to its cybersecurity risk management and privacy practices, advising on: (1) the practices, procedures and controls that XA management uses to identify, manage and mitigate risks related to cybersecurity, privacy and disaster recovery and respond to incidents with respect thereto; and (2) advise on cybersecurity risk and privacy courses and other regulatory compliance solutions that XA offers to its clients. XA's Cyber Advisory Group consists of leading cybersecurity practitioners with decades of government and private industry experience, including a former Chief Information Security Officer for the U.S. Central Intelligence Agency, and a former Chief Information Security Officer for the U.S. Defense Intelligence Agency. For more information on the CAG, click [here](#).