Advanced Technology Auditing

29 August – 2 September 2027
Online



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Introduction

As digital transformation accelerates, organizations face increasingly complex risks across cloud environments, artificial intelligence systems, and interconnected technologies. The modern technology auditor must go beyond traditional controls testing to become a strategic partner in digital governance and resilience.

This advanced course is specifically designed for seasoned auditors, risk professionals, and IT leaders seeking to elevate their expertise in auditing cutting-edge technologies. Through immersive case studies, simulated audits, and hands-on labs, participants will gain the knowledge and capabilities to assess emerging threats, ensure regulatory compliance, and build trust in dynamic digital ecosystems.

Course Objectives

By the end of this course, participants will be able to:

- Conduct risk-based audits across complex, evolving digital environments.
- Assess the security, compliance, and resilience of artificial intelligence systems and hybrid cloud architectures.
- Design audit frameworks for emerging technologies, including blockchain, robotic automation, and connected devices.
- Use advanced tools for real-time monitoring, analytics-driven auditing, and cyber threat intelligence integration.
- Execute forensic audits and review incident response effectiveness.
- Align audit activities with global governance frameworks such as COBIT 2019, ISO/IEC 27005, NIST SP 800-53, and the Cloud Security Alliance.
- Navigate the legal and regulatory complexities of cross-border digital operations.

Course Outlines

Day 1: Strategic Audit Planning and Risk Intelligence

- Advanced audit scoping for enterprise and cloud-native ecosystems.
- Leveraging real-time threat intelligence in risk assessment.
- Audit planning in DevOps and containerized environments.
- Control mapping using COBIT 2019 and NIST SP 800-53.
- Case study: Crafting a multi-layer audit plan for a financial technology firm.



Day 2: Auditing AI, Automation, and Digital Trust

- Auditing artificial intelligence and machine learning systems.
- Evaluating explainability, fairness, and bias in AI models.
- Assessing governance controls in robotic process automation RPA.
- Using intelligent audit automation tools and data analytics platforms.
- Case study: Auditing AI governance in a healthcare environment.

Day 3: Cybersecurity, Forensics, and Incident Response

- Advanced cybersecurity audit techniques and threat modeling.
- Assessing the effectiveness of security operations centers SOCs and SIEM platforms.
- Introduction to digital forensics for auditors.
- Auditing incident response readiness and post-breach recovery.
- Hands-on lab: Simulated audit of a breached IT infrastructure.

Day 4: Auditing Cloud, IoT, and Emerging Technologies

- Auditing hybrid and multi-cloud platforms Azure, AWS, Google Cloud.
- Identity and Access Governance across Federated Systems.
- Security and Compliance Risks in IoT and Edge Computing.
- Blockchain auditing: Smart contracts, integrity, and assurance.
- Case study: Data residency and cross-border compliance in cloud deployments.

Day 5: Reporting, Ethics, and the Future of Audit

- High-impact audit reporting: dashboards, risk scoring, and key metrics.
- Communicating findings to boards, leadership, and audit committees.
- Ethical considerations in AI auditing and emerging tech.
- Building a proactive audit function with continuous controls monitoring.
- Foresight session: Quantum computing, Zero Trust models, and audit evolution.
- Group presentation: Delivering a strategic audit report to executive stakeholders.

Why Attend This Course: Wins & Losses!

- Master advanced auditing techniques for AI, automation, cloud, blockchain, and beyond.
- Strengthen your ability to identify, assess, and respond to digital risks in real time.
- Deepen your understanding of digital ethics and regulatory compliance across jurisdictions.
- Increase your strategic value by delivering audit insights that drive business resilience.
- Gain practical experience through simulations and real-world scenarios.



Conclusion

This course will position you at the forefront of technology auditing. With digital ecosystems expanding rapidly, your ability to provide assurance, identify vulnerabilities, and guide executive decision-making is more important than ever.

Whether your goal is to lead audit transformation, build cyber resilience, or support AI governance, this program delivers the depth, rigor, and hands-on practice to help you succeed.

