Cybersecurity for Research Data Management Training Course

Professional Development Training Course Outline

Category	Research and Data Analysis	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

In today’s data-driven landscape, researchers handling sensitive data must prioritize cybersecurity in research data management (RDM). With the exponential increase in cyber threats, ethical breaches, and data leaks, understanding how to safeguard research data—especially when dealing with sensitive topics like health, political activism, surveillance, or minority rights—is not just recommended but essential. Cybersecurity for Research Data Management Training Course empowers researchers and academic professionals with cutting-edge skills, tools, and strategies to implement secure data handling practices throughout the research lifecycle.

This highly specialized course integrates principles of data protection, ethical considerations, digital forensics, and cybersecurity compliance. Learners will gain practical experience in secure data storage, encrypted communications, access controls, anonymization techniques, and regulatory frameworks such as GDPR and HIPAA. Through interactive modules, real-world case studies, and hands-on sessions, participants will be equipped to manage risks while preserving data integrity and trust in high-risk research environments.

Programme Curriculum

Cybersecurity for Research Data Management Training Course

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Course Objectives

1. Understand core principles of cybersecurity in research data management.
2. Identify risks associated with handling sensitive or confidential research data.
3. Learn best practices in secure digital storage and encrypted data transmission.
4. Apply ethical and legal frameworks to data collection, analysis, and sharing.
5. Implement access control systems and authentication methods in research projects.
6. Explore data anonymization and pseudonymization techniques.
7. Recognize potential cybersecurity threats and attack vectors.
8. Apply incident response protocols in the event of a data breach.
9. Utilize risk assessment frameworks for sensitive research topics.
10. Navigate compliance standards like GDPR, HIPAA, and institutional policies.
11. Develop a research data security plan for your organization or project.
12. Integrate cybersecurity tools and open-source platforms in research workflows.
13. Enhance capacity for collaborative secure research environments globally.

Target Audience

1. Academic researchers
2. Graduate students (PhD/Master's)
3. Research data managers
4. Ethics committee members
5. Institutional review boards (IRBs)
6. University IT and data protection staff
7. NGOs handling sensitive field data
8. Policy researchers and investigative journalists

Course Duration: 5 days

Course Modules

Module 1: Introduction to Cybersecurity in Research Contexts

- Defining sensitive research topics and data categories
- Principles of cybersecurity in research
- Threat modeling and risk identification
- Digital ethics and responsible data use
- Research data lifecycle vulnerabilities
- **Case Study:** Exposure of activist identities in political fieldwork

Module 2: Data Classification and Risk Management

- Classifying data sensitivity levels
- Performing data risk assessments
- Identifying high-value/high-risk data
- Mitigation strategies for specific threats
- Regulatory impact on data classification

- **Case Study:** Health research in conflict zones

Module 3: Secure Data Collection and Field Research

- Secure survey and interview techniques
- Encrypted communication with participants
- Use of anonymization during collection
- Digital consent form security
- Offline data protection practices
- **Case Study:** LGBTQ+ rights research in restrictive environments

Module 4: Data Storage, Access Control & Encryption

- Local vs cloud storage: pros and cons
- Encryption methods and tools (at rest/in transit)
- Access control strategies for research teams
- Backup strategies and disaster recovery
- Managing devices and removable media securely
- **Case Study:** University breach due to poor storage practices

Module 5: Data Anonymization and Privacy Preservation

- De-identification and pseudonymization explained
- Differential privacy techniques
- Balancing data utility and privacy
- Re-identification risks and prevention
- Tools for secure data redaction
- **Case Study:** Re-identification from de-identified health data

Module 6: Incident Response and Cybersecurity Policies

- Responding to cybersecurity incidents in academia
- Creating incident response protocols
- Legal responsibilities in a data breach
- Reporting obligations and escalation
- Institutional cybersecurity frameworks
- **Case Study:** Data leak in psychological trauma research

Module 7: Regulatory Compliance and Legal Standards

- Overview of GDPR, HIPAA, and local laws
- Ethics in international data collaboration
- Compliance checklist for sensitive data research
- Institutional and funder compliance strategies
- Documentation and audit trails
- **Case Study:** GDPR violation in transnational health research

Module 8: Cybersecurity Tools for Research Projects

- Secure collaboration platforms
- Password managers and MFA tools
- Secure research notebooks and data vaults
- Open-source cybersecurity tools for RDM
- Evaluating and choosing secure tools
- **Case Study:** Deploying open-source encryption tools in environmental justice research

Training Methodology

- Instructor-led workshops with live demonstrations
- Interactive simulations and tool tutorials
- Group-based scenario planning and threat modeling
- Hands-on labs for anonymization and encryption
- Real-world case study analysis and debriefs
- Capstone project: build a secure research data management plan

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

Ready to enroll or request a customized program? Book online or contact us:

Register Online Now

Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com