Research Data Lifecycle 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 research environment, effective Research Data Lifecycle Management (RDLM) has become critical for maximizing data integrity, reproducibility, and compliance. Organizations are increasingly emphasizing data governance, metadata standards, and FAIR principles to ensure that research outputs are accurate, discoverable, and reusable. Research Data Lifecycle Management Training Course equips researchers, data managers, and academic professionals with the essential skills to manage the entire data lifecycle from data creation and collection to storage, sharing, and archiving using cutting-edge tools and best practices.

By integrating practical case studies, hands-on exercises, and real-world scenarios, participants will develop expertise in data stewardship, digital preservation, and research data policy compliance. The course emphasizes trending techniques in data curation, metadata management, and secure data sharing, preparing learners to navigate the evolving landscape of open science, data ethics, and research reproducibility. Participants will leave the training with the confidence to implement robust data lifecycle strategies, streamline workflows, and enhance the impact and credibility of their research outputs.

Programme Curriculum

Research Data Lifecycle Management Training Course

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Course Duration

5 days

Course Objectives

1. Understand the full research data lifecycle from creation to archiving.
2. Implement FAIR data principles for improved data usability and sharing.
3. Apply data governance frameworks in research projects.
4. Develop metadata and documentation strategies for reproducibility.
5. Execute data storage, backup, and security protocols.
6. Utilize cloud-based and institutional repositories for data management.
7. Design and implement data management plans (DMPs) aligned with funding agency requirements.
8. Analyze and monitor data quality and integrity across research workflows.
9. Integrate open science practices and data sharing policies.
10. Address ethical, legal, and privacy considerations in research data handling.
11. Employ data curation and archival strategies for long-term preservation.
12. Solve real-world challenges using case study-driven scenarios.
13. Enhance research impact and visibility through effective data dissemination.

Target Audience

1. Academic researchers and faculty members
2. Data managers and research coordinators
3. Graduate and postgraduate students
4. Librarians and information professionals
5. Research administrators and compliance officers
6. Open science and data stewardship advocates
7. IT professionals supporting research infrastructure
8. Policy makers and funding agency representatives

Course Modules

Module 1: Introduction to Research Data Lifecycle

- Overview of data lifecycle stages
- Understanding FAIR and CARE principles
- Case study: Successful data management in a multi-institutional research project
- Identifying data types and formats
- Exploring the importance of reproducibility and transparency

Module 2: Data Management Planning (DMP)

- Components of a robust DMP
- Aligning with funding agency requirements
- Drafting a DMP for a research proposal
- Using digital tools for DMP creation and monitoring
- Case study: DMP implementation in a national research program

Module 3: Metadata & Documentation

- Importance of metadata standards and schemas
- Creating machine-readable and human-readable documentation
- Metadata for interdisciplinary research data
- Tools for automated metadata generation
- Case study: Metadata-driven data discovery in biomedical research

Module 4: Data Storage & Security

- Best practices for secure storage and backup
- Using cloud-based repositories vs local storage
- Managing sensitive and confidential data
- Strategies for data encryption and access control
- Case study: Data breach mitigation in university research data

Module 5: Data Sharing & Open Science

- Policies for data sharing and open access
- Choosing the right repositories and licenses
- Ensuring citability and discoverability
- Addressing legal and ethical considerations
- Case study: Successful open data sharing in environmental science

Module 6: Data Quality & Integrity

- Techniques for data validation and cleaning
- Monitoring data consistency and reproducibility
- Version control for dynamic datasets
- Tools for quality assurance and audit trails
- Case study: Maintaining data integrity in longitudinal studies

Module 7: Data Curation & Preservation

- Long-term data preservation strategies
- Digital preservation standards and practices
- Tools for archival and repository management
- Ensuring sustainability and accessibility
- Case study: Preserving historical research datasets for future use

Module 8: Emerging Trends & Future Directions

- AI and machine learning in data management
- Advances in blockchain and secure data sharing

- Implementing research data analytics
- Preparing for policy and compliance changes
- Case study: Leveraging AI for efficient research data lifecycle management

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

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
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