

# Bibliometrics and Scientometrics 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

Bibliometrics and Scientometrics are at the forefront of research evaluation and knowledge management in today's data-driven academic and scientific environment. Bibliometrics and Scientometrics Training Course is designed to equip researchers, librarians, policy analysts, and academic leaders with advanced skills in research analytics, publication impact assessment, and data-driven decision-making. Participants will explore the latest tools, databases, and methodologies to measure scholarly productivity, map research trends, and optimize institutional and individual research performance.

This course integrates hands-on exercises, real-world case studies, and interactive workshops, ensuring participants gain practical expertise in citation analysis, research mapping, and bibliometric indicators. By the end of the program, learners will be proficient in leveraging scientometric techniques to enhance research visibility, monitor emerging scientific trends, and contribute to strategic research planning. This comprehensive approach makes the course invaluable for anyone aiming to excel in research management, academic evaluation, and policy-making.

### Programme Curriculum

#### Bibliometrics and Scientometrics Training Course

##### Introduction

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### **Course Duration**

5 days

### **Course Objectives**

1. Understand fundamental concepts of bibliometrics and scientometrics.
2. Analyze research performance using citation and publication metrics.
3. Apply advanced bibliometric tools like Scopus, Web of Science, and Google Scholar.
4. Conduct co-authorship, co-citation, and co-occurrence network analyses.
5. Develop research trend mapping and forecasting skills.
6. Evaluate journal impact using JIF, SJR, CiteScore, and SNIP.
7. Optimize researcher visibility through h-index, g-index, and altmetrics.
8. Apply bibliometric indicators for institutional ranking and research assessment.
9. Integrate data visualization techniques for scientometric reporting.
10. Conduct systematic literature reviews with bibliometric support.
11. Design and implement data-driven research strategies.
12. Explore emerging trends in open science, research collaboration, and AI in bibliometrics.
13. Develop actionable insights for policy-making, funding allocation, and academic planning.

### **Target Audience**

1. Academic researchers and faculty members
2. University librarians and knowledge managers
3. Research administrators and coordinators
4. Policy analysts and government research bodies
5. PhD scholars and postgraduate students
6. Research funding agencies
7. Data scientists and scientometric analysts
8. Open science and research evaluation specialists

### **Course Modules**

#### **Module 1: Introduction to Bibliometrics and Scientometrics**

- Definition, history, and scope of bibliometrics and scientometrics
- h-index, g-index, impact factor
- Differences between qualitative and quantitative research assessment
- Case study: Mapping top-cited research in AI
- Emerging trends in research evaluation

#### **Module 2: Bibliometric Databases and Tools**

- Overview of Scopus, Web of Science, Google Scholar, Dimensions
- Hands-on database search and data export

- Introduction to bibliometric software
- Case study: Institutional publication analysis using Scopus
- Limitations and challenges of bibliometric databases

### **Module 3: Citation Analysis and Metrics**

- Citation counting and normalization techniques
- Journal metrics
- Author-level metrics
- Case study: Comparative citation analysis of top researchers
- Interpreting metrics for research evaluation

### **Module 4: Co-authorship and Collaboration Networks**

- Mapping research collaborations using network analysis
- International and institutional collaboration trends
- VOSviewer and Gephi for co-authorship mapping
- Case study: Collaboration patterns in COVID-19 research
- Understanding the influence of collaboration on research impact

### **Module 5: Co-citation and Bibliographic Coupling**

- Concept and applications of co-citation analysis
- Bibliographic coupling to identify research clusters
- Visualizing knowledge structures and research fronts
- Case study: Co-citation network in renewable energy research
- Implications for literature review and strategic research planning

### **Module 6: Research Trend Analysis and Forecasting**

- Identifying emerging topics using bibliometric techniques
- Keyword co-occurrence and thematic mapping
- Trend visualization with Bibliometrix and VOSviewer
- Case study: Forecasting AI research directions 2023–2026
- Integrating trend analysis into research strategy

### **Module 7: Research Assessment and Institutional Ranking**

- Using bibliometrics for performance evaluation
- Benchmarking institutions and research groups
- Metrics for funding allocation and policy decisions
- Case study: University ranking and strategic insights
- Best practices in responsible research assessment

### **Module 8: Practical Applications and Policy Insights**

- Translating bibliometric insights into actionable decisions
- Reporting and visualization for stakeholders
- Applications in open science and research management
- Case study: Policy formulation for national research priorities
- Future of scientometrics with AI and big data

## 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](mailto: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   |
|-------------|-------------|----------|---------|
| 21 Sep 2026 | 25 Sep 2026 | Online   | \$1,000 |

| Start Date  | End Date    | Location | Price   |
|-------------|-------------|----------|---------|
| 21 Sep 2026 | 25 Sep 2026 | Physical | \$1,500 |
| 21 Sep 2026 | 25 Sep 2026 | Physical | \$0     |
| 21 Sep 2026 | 25 Sep 2026 | Physical | \$0     |
| 21 Sep 2026 | 25 Sep 2026 | Physical | \$0     |
| 21 Sep 2026 | 25 Sep 2026 | Physical | \$0     |
| 21 Sep 2026 | 25 Sep 2026 | Physical | \$0     |
| 21 Sep 2026 | 25 Sep 2026 | Physical | \$0     |

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

Register Online Now

Email: [info@fineskilltrainingcenter.com](mailto:info@fineskilltrainingcenter.com) | Website: [www.fineskilltrainingcenter.com](http://www.fineskilltrainingcenter.com)