

**NIGERIAN INSTITUTE OF SCIENCE LABORATORY TECHNOLOGY (NISLT)  
(FEDERAL MINISTRY OF INNOVATION, SCIENCE AND TECHNOLOGY)**

**IN COLLABORATION WITH**

**ASSOCIATION OF SCIENCE LABORATORY TECHNOLOGISTS OF NIGERIA NISLT BRANCH**

**(A statutory Professional Body Chartered by Act No. 12 of 2003 of the National Assembly)**



**2025**

# **SHORT TERM TRAINING WORKSHOP PROGRAMMES**



**Ibadan Office:** Educational Zone, Samonda-Sango/U.I. Road, P. O. Box 9764, U. I. Post Office Ibadan, Oyo State, Nigeria

**Abuja Office:** Jabi Airport Road, beside NOUN, opposite EFCC, adjacent Federal Medical Centre, Abuja Nigeria.

**South South:** Edo State Ministry of Science and Technology Secretariat Benin City

**South East:** Room 34-37 Ministry of Environment State Secretariat, Abakaliki, Ebonyi State

**North East:** Modibbo Adama University Yola Adamawa State

**website:** [www.nislt.gov.ng](http://www.nislt.gov.ng)

Tel: 08088271378; 09166537559, 08062117814, 08030787747, 07066289848

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## **BRIEF ON THE INSTITUTE**

The Nigerian Institute of Science Laboratory Technology (NISLT) was established by Act 12 of 2003 of the National Assembly and made a parastatal of the Federal Ministry of Innovation, Science and Technology. The Institute was hitherto known as the Nigerian Institute of Science Technology (NIST) founded in 1971 saddled with responsibility of “advancing science laboratory technology profession, ensure through its registered members effective and efficient management and administration of science laboratories in Nigeria and arranging appropriate on-the-job training for members of the profession”.

Over the years, the Institute has developed its human resources and infrastructure to fulfil its mandate. This includes establishing and Re-equipping a state-of-the-art Multipurpose Science Laboratory at its national secretariat in Ibadan, Oyo State with level II bio containments’. It may interest you to note that the laboratory is equipped with modern, computerized tools designed for training, routine laboratory services, and research utilizing advanced technologies. Participants in the training workshops will have the opportunity to engage with these cutting-edge facilities, gaining practical knowledge and skills to improve their workplace performance.

Resource persons for the workshops are experienced Lecturers and Scientists drawn from Tertiary Institutions, Industries, Research Institutes and the Private Sector.

## **TRAINING METHODOLOGY**

The workshops will feature a blend of lectures, interactive discussions, case studies, simulation exercises, multimedia presentations, and hands-on practical sessions.

In light of this, we are delighted to announce the following workshops and training programs scheduled for the year 2025.

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**NIGERIAN INSTITUTE OF  
SCIENCE LABORATORY TECHNOLOGY**  
2025 NISLT SHORT TERM TRAINING WORKSHOP PROGRAMMES



## **1. WORKSHOP ON BASIC ETHICAL STANDARDS AND BEST PRACTICES IN LABORATORY OPERATIONS**

**FOR:** Laboratory Attendants, Assistants, Technicians, Supervisors, Superintendents and other Laboratory personnel

**OBJECTIVE:** The main objective of this workshop is to expose the participants to the requirements for Laboratory personnel, Laboratory Management Systems, Risk and Hazard Management for effective and result oriented Laboratory system.

### **COURSE CONTENT:**

- The Role of Laboratory Personnel in Laboratory Organization and Maintenance
- Understanding Ethical Guidelines in Laboratory Science
- Code of Conduct for Laboratory Professionals
- Ensuring Data Integrity and Avoiding Scientific Misconduct
- Quality Control and Quality Assurance in Laboratory Practices
- The Role of Accreditation in Promoting Ethical Laboratory Standards
- Confidentiality and Privacy in Handling Laboratory Data
- Effective Documentation and Reporting Practices
- The Role of Leadership in Fostering Ethical Laboratory Practices
- Resolving Ethical Dilemmas in Laboratory Operations
- Regulatory Compliance and Adherence to International Standards
- Introduction to Management and Cleaning of Laboratory, Proper disposal of laboratory waste

**DURATION:** 7 days

**Date:** 7th – 11th April 2025

**Arrival:** 6th April 2025

**Departure:** 12th April 2025

**FEE:** N70,000.00 (Payment to United Bank for Africa (UBA)  
(ASLTON NISLT BRANCH 1020755954)

**VENUE:** Nigerian Institute of Science Laboratory Technology,  
Educational Zone, Samonda, Ibadan, Oyo State.



## **2. LABORATORY SAFETY, WASTE MANAGEMENT AND RISK MITIGATION**

**FOR:** Laboratory Managers, Quality Assurance Officers, Laboratory Scientists and Technologists, Laboratory Assessors in food, Environmental, Electronic, Chemical, Pharmaceutical, Institutional and Industrial Laboratories.

**OBJECTIVE:** To Acquaint the Participants on Laboratory Quality Management System, NISLT and Accreditation Procedures for Institutions Offering Science Laboratory Technology (SLT)

### **COURSE CONTENT:**

- The Role of NISLT in Laboratory Safety and Waste Management
- Introduction to Laboratory Safety Principles and Policies
- Identifying and Managing Chemical, Biological, and Physical Hazards
- Safe Handling, Storage, and Disposal of Hazardous Materials
- Radiation Protection and Safety
- Handling Radioactive Equipment, Material and Substances
- Emergency Preparedness: Fire Safety and First Aid in Laboratories
- Risk Assessment and Management Strategies in Laboratory Settings
- Best Practices for Personal Protective Equipment (PPE) Use
- Implementation of Biosafety Levels (BSL) in Laboratories
- Innovative Techniques in Laboratory Waste Minimization
- Environmental Impacts of Laboratory Activities and Waste Management Solutions
- Creating a Safety Culture: Roles and Responsibilities of Laboratory Staff

**DURATION:** 7 days

**Date:** 12th – 16th May 2025

**Arrival:** 11th May 2025

**Departure:** 17th May 2025

**FEE:** N70,000.00 (Payment to United Bank for Africa (UBA)  
(ASLTON NISLT BRANCH 1020755954)

**VENUE:** Nigerian Institute of Science Laboratory Technology,  
Educational Zone, Samonda, Ibadan, Oyo State.

**REQUIREMENT:** Participants are advised to come with their Laboratory Coats.





### 3. **SPECIALIZED TRAINING COURSE ON HUMAN RESOURCE MANAGEMENT AND ADMINISTRATIVE PROCEDURES IN SCIENCE LABORATORY TECHNOLOGY**

#### **Objective:**

- This training module is designed to equip participants with the skills and knowledge necessary to effectively manage human resources (HR) and administrative procedures in science laboratory environments.
- Master HR management principles and administrative procedures tailored to laboratory settings.
- Develop financial management skills, including budgeting, cost control, and financial reporting.
- Align financial practices with operational goals and regulatory compliance.
- Foster an organized, sustainable, and collaborative laboratory environment.

**Target Audience:** Laboratory managers, administrators, and HR personnel in science laboratories.

#### **COURSE CONTENT:**

##### **The Role of NISLT in Introduction to HR Management for Laboratory Personnel**

- Basics of HR Management
- Recruitment and Selection
- Training and Development

##### **Administrative Procedures in Science Laboratories**

- Organizational Structure and Roles
- Documentation and Record-Keeping
- Regulatory Compliance and Safety

##### **Financial Management and Budgeting in Laboratory Operations**

- Budgeting for Laboratory Operations
- Cost Control and Resource Optimization
- Financial Reporting and Compliance

##### **Advanced HR and Administrative Practices with Financial Integration**

- Performance Management
- Leadership, Team Building, and Conflict Resolution
- Integrating Financial and Administrative Strategies
- Marketing and Sustainability

- **Duration:** 7 days
- **Date:** 26th – 30th May 2025
- **Arrival:** 25th May 2025
- **Departure:** 31st May 2025
- **FEE:** N70,000.00 (**Payment to United Bank for Africa (UBA)  
(ASLTON NISLT BRANCH 1020755954)**)

#### **VENUE:**

Nigerian Institute of Science Laboratory Technology,  
Educational Zone, Samonda, Ibadan, Oyo State.



#### **4. WORKSHOP ON PROXIMATE ANALYSIS TECHNIQUES FOR DETERMINING NUTRITIONAL COMPOSITION**

**FOR:** Instrumentation Technologists, scientists, supervisors, laboratory managers and those involved in the use and maintenance of laboratory equipment.

**OBJECTIVES:** The objective of the workshop is to expose Scientists/Technologists to hands-on techniques and skills in determining the values of macronutrients in food samples and Agro-allied Product.

#### **COURSE CONTENT:**

- The Role of NISLT in Sample Testing, Analysis and Quality Control.
- Introduction to Proximate Analysis: Principles and Applications
- Moisture Content Determination Methods in Food Samples
- Quantitative Analysis of Ash Content in Food Products
- Techniques for Measuring Crude Protein Content
- Analysis of Crude Fat Content Using Soxhlet Extraction
- Determination of Crude Fiber in Agricultural and Food Products
- Carbohydrate Analysis through Difference Method and Advanced Techniques
- Ensuring Accuracy and Precision in Proximate Analysis Measurements
- Interpreting Nutritional Data for Food Labeling and Quality Control
- Application of Proximate Analysis in Food Safety and Product Development

**DURATION:** 7 days

**DATE:** 9th – 13th June 2025

**ARRIVAL:** 8th June 2025

**DEPARTURE:** 14th June 2025

**FEE:** N80,000.00 (Payment to United Bank for Africa (UBA)  
(ASLTON NISLT BRANCH 1020755954)

**VENUE:** Nigerian Institute of Science Laboratory Technology,  
Educational Zone, Samonda, Ibadan, Oyo State.

**REQUIREMENT:** Participants are advised to come with their Laboratory Coats.



## **5. TRAINING WORKSHOP ON LABORATORY METHODS FOR WATER QUALITY TESTING AND TREATMENT TECHNIQUES**

**FOR:** Laboratory Managers, Quality Assurance Officers, Laboratory Scientists and Technologists, Laboratory Assessors in food, Environmental, Electronic, Chemical, Pharmaceutical, Institutional and Industrial Laboratories.

**OBJECTIVES:** The objective of the workshop to Acquaint the Participants to approach of Equipment Ordering, installation, Commission and Management.

### **COURSE CONTENT:**

- The Role of NISLT in Water Quality, Testing and Treatment Techniques
- Overview of Water Quality Standards and Regulations
- Physicochemical Parameters in Water Quality Testing
- Microbiological Analysis of Water for Pathogen Detection
- Analytical Techniques for Heavy Metal Contamination in Water
- Spectrophotometric Methods for Assessing Nutrient Levels in Water
- Water Hardness and Alkalinity Testing Methods
- Innovative Water Treatment Techniques: Filtration, Chlorination, and UV Treatment
- Emerging Contaminants: Detection and Removal Strategies
- Role of Membrane Technology in Water Purification
- Wastewater Treatment and Recycling for Sustainable Water Use

**DURATION:** 7 days

**Date:** 14th – 18th July 2025

**Arrival:** 13th July 2025

**Departure:** 19th July 2025

**FEE:** N80,000.00 (Payment to United Bank for Africa (UBA)  
(ASLTON NISLT BRANCH 1020755954)

**VENUE:** Nigerian Institute of Science Laboratory Technology, Educational Zone, Samonda, Ibadan, Oyo State.

**REQUIREMENT:** Participants are advised to come with their Laboratory Coats.





## **6. STATISTICAL ANALYSIS AND INTERPRETATION OF LABORATORY DATA**

**FOR:** Laboratory Managers, Quality Assurance Officers, Laboratory Scientists and Technologists, Laboratory Assessors in food, Environmental, Electronic, Chemical, Pharmaceutical, Institutional and Industrial Laboratories.

**OBJECTIVE:** The main objective of this workshop is to expose the participants to the Research techniques, Data Collection/Analysis, and results interpretations

### **COURSE CONTENT**

- The Role of NISLT in Research and Development (R&D)
- Introduction to Statistical Methods in Laboratory Research
- Data Types and Descriptive Statistics in Laboratory Settings
- Inferential Statistics: Hypothesis Testing in Laboratory Experiments
- Correlation and Regression Analysis for Laboratory Data
- Analysis of Variance (ANOVA) and Its Applications in Laboratory Studies
- Design of Experiments (DOE) for Optimizing Laboratory Processes
- Data Visualization Techniques for Effective Interpretation
- Using Statistical Software (e.g., SPSS, R) for Data Analysis
- Handling Outliers and Missing Data in Laboratory Research
- Statistical Reporting and Communication for Laboratory Findings

**DURATION:** 7 days

**Date:** 11th – 15th August 2025

**Arrival:** 10th August 2025

**Departure:** 16th August 2025

**FEE:** N80,000.00 (Payment to United Bank for Africa (UBA)  
(ASLTON NISLT BRANCH 1020755954)

**VENUE:** Nigerian Institute of Science Laboratory Technology,  
Educational Zone, Samonda, Ibadan, Oyo State.



## **7. EXPERIMENTAL DESIGN AND DATA COLLECTION TECHNIQUES IN LABORATORY RESEARCH**

**FOR:** Laboratory Managers, Quality Assurance Officers, Laboratory Scientists and Technologists, Laboratory Assessors in food, Environmental, Electronic, Chemical, Pharmaceutical, Institutional and Industrial Laboratories.

**OBJECTIVE:** The main objective of this workshop is to expose the participants to the Research techniques, Data Collection/Analysis, and results interpretations.

### **COURSE CONTENT**

- The Role of NISLT in Research and Development (R&D)
- Principles of Experimental Design in Laboratory Science
- Randomization and Control in Laboratory Experiments
- Identifying Variables and Setting Up Controls
- Sampling Techniques for Laboratory Research
- Developing Standard Operating Procedures (SOPs) for Data Collection
- Designing Pilot Studies to Validate Experimental Approaches
- Using Digital Tools for Automated Data Collection in Laboratories
- Assessing Reproducibility and Reliability in Laboratory Experiments
- Ethical Considerations in Laboratory Research Design
- Documentation and Archiving of Experimental Data
- 

**DURATION:** 7 days

**Date:** 8th – 12th September 2025

**Arrival:** 7th September 2025

**Departure:** 13th September 2025

**FEE:** N80,000.00 (Payment to United Bank for Africa (UBA)  
(ASLTON NISLT BRANCH 1020755954)

**VENUE:** Nigerian Institute of Science Laboratory Technology,  
Educational Zone, Samonda, Ibadan, Oyo State.

**REQUIREMENT:** Participants are advised to come with their Laboratory Coats.



## **8. ARTIFICIAL INTELLIGENCE (AI) APPLICATION IN LABORATORY ADMINISTRATION AND MANAGEMENT**

**FOR:** Laboratory personnel (Scientists, Technologists, Technicians), Laboratory Managers, Researchers, personnel working in both public and private laboratories.

**OBJECTIVES:** The primary objective of this training is to equip participants with the knowledge and practical skills required to leverage Artificial Intelligence (AI) in enhancing laboratory administration and management. Introduce participants to the principles of Artificial Intelligence and its relevance to laboratory operations.

### **COURSE CONTENT**

- The Role of SLT in Laboratory Automation and application of Artificial Intelligence.
- Overview of Artificial Intelligence in Laboratory Management
- AI-Powered Laboratory Information Management Systems (LIMS)
- Optimizing Workflow Efficiency with AI-Based Automation
- AI in Inventory Management: Tracking and Stock Optimization
- Using Machine Learning for Scheduling and Resource Allocation
- AI-Driven Decision Support Systems for Laboratory Administrators
- Data Security and Privacy in AI-Managed Laboratories
- Improving Laboratory Quality Control with AI Tools
- Integrating AI for Training and Performance Monitoring of Staff
- Future Trends in AI Applications for Laboratory Administration

**DURATION:** 7 days

**Date:** 6th – 10th October 2025

**Arrival:** 5th October 2025

**Departure:** 11th October 2025

**FEE:** N80,000.00 (Payment to United Bank for Africa (UBA)  
(ASLTON NISLT BRANCH 1020755954)

**VENUE:** Nigerian Institute of Science Laboratory Technology,  
Educational Zone, Samonda, Ibadan, Oyo State.

**REQUIREMENT:** Participants are advised to come with their Lap top.



## **9. NANOTECHNOLOGY AND ITS APPLICATIONS IN LABORATORY SCIENCE**

**FOR:** Laboratory personnel (Scientists, Technologists, Technicians), Laboratory Managers, Researchers, personnel working in both public and private laboratories.

**OBJECTIVES:** The primary objective of this training is to provide participants with foundational knowledge and practical expertise in nanotechnology and its diverse applications in laboratory science. Introduce participants to the principles, concepts, and tools of nanotechnology and its relevance to laboratory science.

### **COURSE CONTENT**

- The Role of NISLT in advancing nanotechnology and its applications in laboratory science.
- Overview of Artificial Intelligence in Laboratory Management
- Introduction to Nanotechnology: Principles and Fundamentals
- Synthesis and Characterization of Nanomaterials
- Nanotechnology in Analytical Chemistry and Biosensing
- Nanoparticles for Drug Delivery and Biomedical Applications
- Environmental Applications of Nanotechnology in Pollution Control
- Nanomaterials in Energy Storage and Conversion Systems
- Safety and Ethical Considerations in Nanotechnology Research
- Advanced Imaging Techniques for Nanostructure Analysis
- Nanotechnology in the Development of Smart Laboratory Materials
- Commercialization and Future Directions of Nanotechnology in Laboratory Science

**DURATION:** 7 days

**Date:** 24th – 28th November 2025

**Arrival:** 23rd November 2025

**Departure:** 29th November 2025

**FEE:** N100,000.00 (Payment to United Bank for Africa (UBA)  
(ASLTON NISLT BRANCH 1020755954)

**VENUE:** Nigerian Institute of Science Laboratory Technology,  
Educational Zone, Samonda, Ibadan, Oyo State.



## GENERAL INFORMATION

### 1. ONLINE LECTURE:

Any participant that intends to attend online lectures for non-practical oriented workshop training should write personally to the institute email address ([inform@nisl.gov.ng](mailto:inform@nisl.gov.ng)) or call 08088271378; 09166537559 at least one month before the date.

### 2. VENUE

Most of the lectures will be held at the NISLT Office, Samonda, Ibadan, except otherwise indicated specifically at NISLT proposed Headquarter in Abuja. In-house training of staff can be arranged for Institutions/Organizations on request. Interested Institutions/Organizations should contact the Director-General/Registrar/CEO for further information.

### 3. ACCOMODATION

Participants will be responsible for their accommodation during the workshops. However, there are suitable hotels and guest houses with facilities which are affordable around the Institute. Arrangements for accommodation can be made on request to the Institute.

### 4. APPLICATIONS

Interested candidates, Institutions and Organizations should apply formally indicating their title(s) of interest to reach the Institute at least two weeks before the commencement date. Late applications or arrival for the respective workshops may not be entertained. Participants who wish to make payments in advance can pay online through the remita ([remita.net](http://remita.net)) into the **Treasury Single Account (TSA) named Nigeria Institute for Science Laboratory Technology** in any of the commercial banks and present the teller during registration. No cash payment please.

### 5. REQUIREMENTS

Since some of the training workshops involve laboratory sessions, participants are mandated to come with **LABORATORY COATS, NOSE MASKS** in compliance with Laboratory Safety Regulations. ALL SAFTEY protocols will the observed.

*FOR APPLICATIONS, COMPLETE THE ATTACHED FORM AND FORWARD IT*

TO:

**The Director-General/Registrar/CEO**  
NIGERIAN INSTITUTE OF SCIENCE LABORATORY TECHNOLOGY  
P.O.BOX 9764, U. I. POST OFFICE  
SAMONDA, IBADAN, OYO STATE  
TEL: 08062117814, 08030787747





**THE NIGERIAN INSTITUTE OF SCIENCE LABORATORY TECHNOLOGY (NISLT)  
CORPORATE NOMINATION FORM FOR 2025 SHORT-TERM TRAINING PROGRAMME**

Name of Organization: .....

Address .....

Email Address: .....

Telephone No.....

Course/Workshop applied for .....

.....

Names of Nominees	Position in Establishment
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

Amount Enclosed .....

Name and Signature of Nominating Officer .....

Phone Number /Email Address of Nominating Officer: .....



**THE NIGERIAN INSTITUTE OF SCIENCE LABORATORY TECHNOLOGY (NISLT)  
INDIVIDUAL APPLICATION FORM FOR 2025 SHORT-TERM TRAINING PROGRAMME**

I hereby apply to participate in the following course(s) of the Institute as advertised:

- (a) ..... Date .....
- (b) ..... Date .....
- (c) ..... Date .....

**PARTICULARS OF APPLICANT:**

NAME: .....

SEX: ..... MARITAL STATUS: .....

Email Address: .....

**ADDRESS & TELEPHONE NUMBER**

- (a) Residential: ..... Tel: .....
- (b) Postal: ..... Tel: .....
- (c) Office ..... Tel: .....
- (d) Home Town: ..... Tel: .....

**ACADEMIC & PROFESSIONAL QUALIFICATIONS WITH DATES:**

.....  
.....

Do you want the Institute to book accommodation for you? .....

If yes? Indicate below:

Ranges of hotel you want .....

The amount in bank draft that you are sending down as deposit

The course fees paid with receipt/bank teller: N.....

I hereby pledge to abide by all the rules and regulations governing the courses, which I have applied for.

\_\_\_\_\_  
Signature of Applicant

## SUMMARY OF THE 2025 SHORT TERM TRAINING

SN	Courses	Dates											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.	Basic Laboratory Skills, Practice and Procedure				22nd – 26th April								
2.	Laboratory Quality Management system, Quality Control & Accreditation Procedure					13th – 17th May							
3.	Specialized Training Course on Human Resource Management and Administrative Procedures in Science Laboratory Technology					26th – 30th May							
4.	Qualitative Research Methods Statistical Analysis of Laboratory Quality Data, Thesis & Scientific Research Paper Writing						3rd – 7th June						
5.	Advanced Training Workshop on Equipment Maintenance, Repairs Calibration, Testing and Application.							22nd – 26th July					
6.	Laboratory method of environmental sampling, analysis and pollution control								12th – 16th Aug				
7.	Advanced Training Course on Molecular Biological Techniques/Biotechnology									9th – 13th Sept			
8.	Laboratory Procedures and analysis of soil, crops, water and agricultural Products										7th – 11th Oct		
9.	Artificial Intelligence (AI) application in Laboratory Administration and Management.											18th – 22nd Nov	