



**NIGERIAN INSTITUTE OF SCIENCE
LABORATORY TECHNOLOGY**

Federal Ministry of Science and Technology

**2011
SHORT – TERM
TRAINING
PROGRAMMES
AT NISLT**

(A statutory Professional Body of Laboratory Technologists/Scientists
Chartered by Act No. 12 of 2003 of the National Assembly)

U. I. Post Office Ibadan, Oyo State, Nigeria

Tel: 08062117814, 08030787747

e-mail: nisltech@yahoo.com

website: www.nislt.gov.ng



PROPOSED TOPICS FOR 2011 TRAINING WORKSHOP SERIES

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 Science and Technology. The Institute was hitherto known as the Nigerian Institute of Science Technology (NIST) founded in 1971.

The core mandate of Nigerian Institute of Science Laboratory Technology is to **“advance science laboratory technology profession and ensure through its registered members effective and efficient management and administration of science laboratories in Nigeria”**.

Over the years, the Institute has put in place human resources and infrastructure to enable it fulfill its mandate. Among them, is the establishment of **Multipurpose Science Laboratory** at its Secretariat, Ibadan, Oyo State, equipped with state-of-the-art science equipment for the conduct of training, laboratory services and research. Prospective participants for the training workshops will have the opportunity to apply these equipment and thus acquire relevant knowledge and skills in their applications to enhance their performances at work.

Resource persons for the workshops are experienced scientists and technologists drawn from Universities, Research Institutes and the Private Sector.

TRAINING METHODOLOGY

The workshops will be conducted through a combination of lectures, discussions, case studies, practical and multimedia presentations.

The underlisted workshops and training programmes are scheduled for the year, 2011.

1. TOPIC: Training Workshop on Laboratory Management, Administration and Good Laboratory Practice

FOR: Laboratory Scientists/Technologists, Laboratory Managers/ Supervisors, users of laboratory equipment and Procurement Officers, Quality Control and assurance managers. Chief Executives of science-based Institutions are also invited.

OBJECTIVE:- The main objective of this workshop is to acquaint technologists and scientists with the principles of laboratory management and laboratory administration, good laboratory practices, equipment management, procurement procedures and safety management procedures in the laboratory

Course Content

- ❖ Good Laboratory management and administration
- ❖ Good laboratory policies and administrations Practices
- ❖ Technical support strategy
- ❖ Designing of a Modern Laboratory
- ❖ Preparation, review and standardization of standard operating procedures
- ❖ Scientific Research Methods
- ❖ Applications of Laboratory Information Management System
- ❖ Effective laboratory safety management
- ❖ Equipment procurement techniques
- ❖ Executive stress management
- ❖ Personnel management principles

DURATION: 7 days

DATE: 10th – 16th April, 2011

ARRIVAL: Sunday 10th April, 2011

DEPARTURE: Saturday 16th April, 2011

FEE: N40,000.00

VENUE: Headquarters of the Nigerian Institute of Science Laboratory
Technology, Samonda, Ibadan

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

2. Topic: Hands-on Training on Laboratory Methods and Procedures for Assistant Technologists, Laboratory Assistants and Attendants.

For: Assistant Technologists, Laboratory Assistants/Attendants, Assistant Technicians and junior/ middle level laboratory personnel in Tertiary Institutions, Secondary Schools, Research Institutes, Industries and Private organizations

OBJECTIVE:

The main objective of this workshop is to expose junior and middle class level laboratory personnel to the latest practices and measures required in a modern teaching laboratory or instrument workshop.

Course content

Latest laboratory practice

Use of basic laboratory instruments, tools and reagents

Use and maintenance of laboratory glass wares

Application of basic techniques in physical, chemical and biological laboratories

Safety in laboratories and workshops.

Basic laboratory instrument maintenance techniques

Duration: 7 days

Date: 8th – 14th May, 2011

Arrival : Sunday 8th May, 2011

Departure: Saturday 14th May, 2011

Fee: N30,000.00

VENUE: Headquarters of the Nigerian Institute of Science Laboratory
Technology, Samonda, Ibadan

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

3. TOPIC: Advanced Training Course on Molecular Biological techniques/ Biotechnology

FOR: Scientists, Technologists, Researchers, Plant quarantine officers, Post-graduate students, and any academician interested in disease diagnosis

OBJECTIVE: Acquaint participants with modern technologies in the diagnosis of pathogens. Molecular methods, such as polymerase chain reaction are fast establishing as a choice method for reliable identification of pathogens. This training course is designed to acquaint participants with modern technologies in the diagnosis of plant pathogens, offers lectures and hands-on training in application of PCR-based methods for diagnosis of viruses, Fungi, bacteria and phytoplasma agents.

The course is advantageous to those who are familiar with plant/animal pathogens and experience in conventional diagnosis using culture-based methods and microscopy. Theoretical and /or practical knowledge on molecular biology would prove advantageous.

COURSE CONTENT:

- Introduction and overview of Biotechnology
- Principles of plant disease diagnosis
- Laboratory methods and equipment in biotechnology
- Various technologies in disease diagnosis and pathogen identification
- Application of Biotechnology
- Hands-on training:
 - Sample collection
 - Sample preparation
 - Sample preservation
 - Preparation of nucleic acid (DNA/RNA) extracts
- Application of PCR, RT-PCR, RFLP and hybridization for the identification of bacteria, fungi, phytoplasma and viruses.

NOTE : This course is co-organized with the International Institute of Tropical Agriculture (IITA)

DURATION: 7 days

DATE: 22nd–28th May, 2011

ARRIVAL: Sunday 22nd May, 2011

DEPARTURE: Saturday 28th May, 2011

FEE: N50,000.00

VENUE: Headquarters of the Nigerian Institute of Science Laboratory Technology, Samonda, Ibadan Nigeria, and the Headquarters of the International Institute of Tropical Agriculture (IITA), Ibadan, Nigeria.

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

(4) TOPIC: Training Workshop on Scientific Research Methods and Data Management

FOR: Scientists, Technologists, Research Officers, Scientific Officers in Tertiary Institution, Research Institutes, Industrialists, Private Organization and Research students in tertiary institutions.

NOTE: The training workshop on scientific research, methods and Data Management is a prerequisite for the award of Fellowship of the Nigerian Institute of Science Laboratory Technology. This will be followed strictly in 2011 award of fellowship

OBJECTIVE The main objective of this workshop is to acquaint participants with the principles of conducting scientific and innovative research involving research proposals, literature search, methodologies, data management and research report writing.

COURSE CONTENT:

Methods of writing research proposals

Contemporary fields of scientific research

Methods of assessing researchable topics and writing literature reviews

Modern techniques in scientific research

The act of scientific writing

The art of reporting scientific research results, Data Analysis and Interpretation

Effective planning and execution of scientific research projects

Methods of writing research reports for publications.

Ethics of Research

DURATION: 7 days

DATE: 5th – 11th June, 2011

ARRIVAL: Sunday 5th June, 2011

DEPARTURE: Saturday 11th June, 2011

FEE: N40, 000.00

VENUE: Headquarters of the Nigerian Institute of Science Laboratory Technology, Samonda, Ibadan

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

(5) TOPIC: Advanced Training Course in Laboratory Estimation of Aflatoxins

FOR: Scientists, Technologists, Researchers, Officers in food safety and quality testing standard Organization, Plant Quarantine officers, post graduate students, and any academician interested in aflatoxin in commodities.

OBJECTIVE Acquaint participants with application of ELISA- based method for the estimation of aflatoxins in commodities.

COURSE CONTENT:

- ❖ Introduction to aflatoxins
- ❖ Monitoring aflatoxins: Why and How?
- ❖ Principles, operational procedure and schematic flow diagram of HPLC equipment
- ❖ Immunological analytical methods: Principle and applications
- ❖ Methods of aflatoxin analysis
- ❖ Principal and application of of Afla- ELISA™ for quantitative estimation of aflatoxins
- ❖ Sample and sample preparation for aflatoxins
- ❖ Isolation of fungi and assessing for aflatoxin potential
- ❖ Experimenting with TLC, HPLC and ELISA
- ❖ Hands- on training in application of Afla- ELISA™

NOTE: This course is co-organized with the International Institute of Tropical Agriculture (IITA)

DURATION: 7 days

DATE: 19th – 25th June, 2011

ARRIVAL: Sunday 19th June, 2011

DEPARTURE: Saturday 25th June, 2011

FEE: N50,000.00

VENUE: Headquarters of the Nigerian Institute of Science Laboratory Technology, Samonda, Ibadan Nigeria, and the Headquarters of the International Institute of Tropical Agriculture (IITA), Ibadan, Nigeria.

REQUIREMENT: Participants are advised to come with their Laboratory Coats

6) TOPIC: Advanced Training Course on Equipment Maintenance and Application
For: Technologists, Scientists, Supervisors, Laboratory Managers and those involved in equipment use and maintenance.

Objective:-

This workshop is designed to train technologist/scientist and other users of science equipment on equipment maintenance, fabrication technique, managerial skills, preventive maintenance, troubleshooting, repair, selection and procurement of appropriate spare parts, professional and technical skill of handling equipment, hazards associated with laboratory equipment and preventive r

Course Content

Equipment maintenance
Equipment fabrication techniques
Basic electronics and electricity
Calibration of laboratory equipment
Instrumentation of selected laboratory equipment
Basic use of ICT tools in equipment interface.
Routine and preventive maintenance, logical troubleshooting, and repairs of selected laboratory equipment.
Laboratory management

Duration: 7 days

Date: 3rd–9th July, 2011

Arrival: Sunday 3rd July, 2011

Departure: Saturday 9th July, 2011

Fee: N60,000.00

VENUE: Headquarters of the Nigerian Institute of Science Laboratory
Technology, Samonda, Ibadan

REQUIREMENTS

1. Working tools
Obsolete equipment from institutions
Laboratory Coats/ work overall

7) TOPIC: Hands-on Training on Application of Chromatographic Equipment for Laboratory Analysis.

FOR: Scientists, Technologists, Chemical Analysts, Research students Quality Control Managers in Tertiary Institutions, Research Institutes, Industries and Private organizations.

OBJECTIVE:- The main objective of this workshop is to acquaint and equip participants with the latest techniques and methods of separation using HPLC, UPLC, LC-MS and GC-MS and other related equipment on the operations, applications, effective routine maintenance and logical trouble shooting.

Course Content

Basic concept of HPLC,UPLC,LC-MS, GC-MS, and other related equipment
Methods of analysis
Identification and quantification of trace elements using HPLC
Cleaning validation for ultra- fast scanning UV-Visible HPLC detector
Instrumentation, operation, trouble shooting and maintenance
Application of HPLC,GC, and other related equipment
Methods of preparing samples for HPLC,GC and other related equipment
Column preparation for HPLC, GC and other related equipment.

DURATION: 7 days

DATE: 24th –30th July, 2011

ARRIVAL: Sunday 24th July, 2011

DEPARTURE: Saturday 30th July, 2011

FEE:- N50,000.00

VENUE: Headquarters of the Nigerian Institute of Science Laboratory Technology, Samonda, Ibadan

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

(8) TOPICS: Advanced Hands- on Training on Application of Spectrophotometric Equipment for Laboratory Analysis

FOR: Scientists, Technologists, Chemical Analysts, Quality Control Managers in Tertiary Institutions, Research Institutes, Industries and private organizations.

OBJECTIVE:-

This workshop is designed to expose and impart practical knowledge to participants on recent state of analytical techniques in spectrophotometer, e.g. AAS, Flame Photometer, X-ray Fluorescence Spectrophotometer, X-ray Diffractometer, FTIR etc, learn the practical operation of the equipment, care, trouble shooting and maintenance of related analytical instruments.

Course Content

Basic and advanced concept of Atomic Absorption spectrophotometer, Flame photometer and other related equipment

Types of spectrophotometers

Principles and practical operation of related equipment

DURATION: 7 days

DATE: 14th – 20th August, 2011

ARRIVAL: Sunday 14th August, 2011

DEPARTURE: Saturday 20th August, 2011

FEE: N50,000.00

VENUE: Headquarters of the Nigerian Institute of Science Laboratory Technology, Samonda, Ibadan

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

(9) TOPIC: Workshop on Laboratory Methods of Water Sampling Analysis and Environmental Analysis

FOR: Scientists, Technologists, Quality Control Managers, Environmental Health Officers, processing industries, Private industrialists and other interested members of the public.

OBJECTIVE:-This workshop is designed to acquaint and keep participants abreast of the validated methods of laboratory water sampling analysis, latest standardized testing procedures, standard methods of analysis of microbial and chemical contaminants in primary and secondary water treatment.

Course Content

Trace metal identification and quantification using HPLC

Environmental analysis technique

Water sampling technique, preservation, storage and transportation

Contaminant and methodology of its analysis

Knowledge and technique of equipment for water analysis and environmental analysis

Physico-chemical analysis of water analysis and environmental pollution

Mineralogical analysis by infra-red spectrometry

Quality assurance and quality control

DURATION: 7 days

DATE: 11th – 17th September, 2011

ARRIVAL: Sunday 11th September, 2011

DEPARTURE: Saturday 17th September, 2011

FEE: N50, 000.00

VENUE: Headquarters of the Nigerian Institute of Science Laboratory Technology, Samonda, Ibadan

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

(10) TOPIC: Workshop on Laboratory Procedures and Analysis of Soil, Crop and Agricultural Products

FOR: Technologists/Scientists, research officers, field officers, lecturers, agriculturists, agro-industrialists, farmers, Veterinarians etc. in tertiary institutions, Federal and State Ministries of agriculture, agricultural officers in local governments, research institutes, industries and private establishments.

OBJECTIVE The main objective of the workshop is to acquaint participants with the latest analytical techniques and procedures for soil, water, plant, fertilizers and other agro-based samples.

COURSE CONTENT:

- ❖ Soil sampling and sampling preparation
- ❖ Plant sampling and analysis techniques
- ❖ Tissue culture techniques
- ❖ Soil analysis for total nitrogen, available phosphorus, exchangeable cations, micronutrients, exchangeable acidity, soil pH, organic mineralogical analytical procedures.
- ❖ Plant analysis for total nitrogen, total phosphorus and total potassium
- ❖ Fertilizer analysis for total nitrogen, total phosphorus and total potassium
- ❖ Quality Assurance in soil, plant and fertilizer analysis
- ❖ Water analysis

DURATION: 7 days

DATE: 9th – 15th October, 2011

ARRIVAL: 9th October, 2011

DEPARTURE: 15th October, 2011

Fees : N50,000.00

VENUE: Headquarters of the Nigerian Institute of Science Laboratory Technology, Samonda, Ibadan

REQUIREMENT: Participants are advised to come with their Laboratory

VENUE

Most of the courses will be held at the NISLT Secretariat, Samonda, Ibadan, except otherwise indicated specifically in some Institutions/Organizations who are in collaboration with the Institute in organizing the courses. In-house training of staff can be arranged for Institutions/Organizations on request. Interested Institutions/Organizations should contact the Registrar/CEO for further information.

GENERAL INFORMATION

ACCOMODATION

Participants will be responsible for their accommodation during the programmes. However, there are suitable Hotels and Guest Houses with suitable facilities and affordable around the Institute. Arrangement for accommodation can be made on request.

APPLICATIONS

Interested candidates, Institutions and Organizations should apply formally indicating their courses of interest to reach the Institute at least two weeks before the commencement date. Late applications or arrival for the respective workshops will not be entertained. Participants who wish to make payments in advance can pay into the Institute's account No. 1812040000471 at the First Bank of Nigeria PLC, and present the teller during registration.

REQUIREMENTS

Since the training workshop involves laboratory sessions, participants are mandated to come with **LABORATORY COATS** in compliance with Laboratory Safety Regulations.

FOR APPLICATIONS, COMPLETE THE ATTACHED FORM AND FORWARD IT

TO:

The 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)

NOMINATION FORM

Name of Organisation

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

.....

**THE NIGERIAN INSTITUTE OF SCIENCE LABORATORY
TECHNOLOGY (NISLT)**

INDIVIDUAL APPLICATION FORM

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

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

PARTICULARS OF APPLICANT

NAME

SEX MARITAL STATUS

ADDRESS & TELEPHONE NUMBER

- (a) Residential:
..... Tel:
- (b) Postal:
.....
- (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 fee being sent in bank draft: ₦.....

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

Signature of Applicant

**LIST OF AFFORDABLE HOTELS FOR WORKSHOP PARTICIPANTS
AROUND NISLT HEADQUARTERS, SAMONDA, IBADAN**

S/NO	HOTEL	ROOMS	CONTACT
1.	TRAVELLER'S MISSION No 1, Adenuga Street, Behind Methodist Grammer School, Bodija, P.O.Box 2473, Ibadan.	Single Room (with AC) - ₦2,000 Double Room (with AC) - ₦2,500	08023356311 08030787173
2.	AYOTOZ HOTELS U. I.- Agbowo Area, Ibadan	Standard Room (with Fan) – ₦3,000 Standard Room (with AC) - ₦3,500 Single Room – ₦2,700	07042339244 027522401
3.	DE-LEGACY HOTELS U. I – Ojoo Road Behind Oceanic Bank Ibadan.	Queen Double (with AC) – ₦3,500 Standard Ensuite (with AC) - ₦5,500 Single Room (with Fan) - ₦3,300	08034352253
4.	PASTORAL INSTITUTE HOSTEL Along U.I. Secretariat Road, Bodija, Ibadan.	Queen Double (with fan) – ₦3,500 Queen Double (with AC) - ₦4,500 Single Room (with Fan) - ₦2,500	08033285232
5.	INSTITUTE OF CHURCH AND SOCIETY, Adjacent the Institute Samonda, Ibadan.	Double Room (with AC) - ₦3,000 Single Room (with Fan) - ₦2,000	08037282947
6.	EMMANUEL ALAYANDE RESOURCE CENTRE Samonda, Ibadan.	Standard Room (with AC) - ₦4,500 Single Room (with AC) - ₦4,000	08034731806
7.	ACHIEVERS HOSTEL Orita U. I., Agbowo, Ibadan	Queen Double (with AC) - ₦3,500 Standard Room (with AC) - ₦3,000	08067099493