Number: 500 **Advanced Systems, Inc. Course**

Registration Form

(Please complete all information requested on-line)

To register on-line for the "Environmental Laboratory Assessments – Basic Assessor Training". Course offered via TNI Training WebEx on **October 16 to 20, 2023**. **PLEASE SIGN UP EARLY.** Classes fill-up quickly.

Registration information:	www.nelac-institute.org
Register on-line:	https://iattend.net/EventHome?id=assess23-Oct
For Questions Email:	mmoore@advancedsys.com
This Course will be held:	via TNI WebEx- Invitation after registration

Please enroll me in the following Course

OCTOBER 16 - 20, 2023

"Environmental Laboratory Assessments – Basic Assessor Training"

$550 per person for TNI members
$700 per person for Non-TNI members

Each person is required to own a copy of the TNI standard Volume 1 and 2 (2016). Materials required for the course include: 2016 TNI Environmental Laboratory (EL) Standard Volumes 1 and 2 with ISO language and the TNI 2016 EL checklist (both provided by the student), and exercises and other materials provided by the instructor prior to the course for students to use in class.

Prerequisite: *Students must read and be familiar with the 2016 TNI EL Standard before the start of class. A pretest is given at the start of class to ensure the students familiarity with these standards.*

The following information is requested to sign up for this class using the TNI website.

Name: _____

Title: _____

Company/Organization: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Email: _____

Payment:

Payment must be received prior to the beginning of the course.

No refunds for cancellations made two weeks prior to the course offering.

DO NOT FAX OR EMAIL REGISTRATION.
GO TO TNI course Registration: https://iattend.net/EventHome?id=assess23-Oct

Administrative Support: Payment made to The NELAC Institute at www.nelac-institute.org. The NELAC Institute (TNI) is a 501(c)(3) non-profit organization whose mission is to foster the generation of environmental data of known and documented quality through an open, inclusive, and transparent process that is responsive to the needs of the community. a 501c3 not for profit organization

Course Offered by: Advanced Systems, Inc. conducts training for environmental sampling, quality control, laboratory operations and field operations and designs Management Systems based on ISO/IEC Management System Standards and ISO/IEC 17025, TNI, DoD and other Environmental Technical Standards.

OBJECTIVES OF COURSE

This course provides examples and a basic understanding of the assessment processes, within The NELAC Institute. The basic principles for assessing environmental laboratories are presented. A summary of the 2016 TNI Environmental Laboratory standards and practical examples for implementation of assessment techniques are an integral portion of this training course.

The rationale for assessing must be based on proven quality principals that allow the determination of adherence to the defined system. The system standards used during this course are the TNI Environmental Laboratory 2016 standard, and the ISO/IEC 17025:2005 "*General Requirements For The Competence Of Testing And Calibration Laboratories"* standard. Conducting an assessment of a laboratory system using quality principles and techniques allows personnel with a basic science background to assess operations and assure conformance to the stated management system.

The course presents the fundamentals of how to assess laboratories using the TNI EL Standard. These fundamentals include:

- Promotes uniformity of laboratory assessments performed to obtain Environmental Laboratory accreditation following the TNI EL Standard.
- Provides an overview of the TNI Standards and the Environmental Laboratory (EL) accreditation process.
- Understanding the difference between assessments, audits, certification, registration and accreditation
- Effective tips and techniques for conducting assessments.
- How to write findings; prepare and present the assessment report and evaluate non-conformances from laboratories
- The basic elements of reviewing proficiency testing performance and performing assessments of management systems.
- Facilitates information exchange among assessors and laboratories.

The course also provides personnel with guidance on assessing quality assurance/quality control (QA/QC) requirements to acquire technically and legally defensible environmental data from laboratory operations. The list of references provided in the course materials will further your understanding and provide specific information.

This class does not address the ISO/IEC 17025:2017 standard and ISO/IEC 17011:2017 which are anticipated for the next TNI EL standard.

COURSE BACKGROUND

Accreditation of laboratories is based on a single set of standards developed by The NELAC Institute (TNI). Members represent federal agencies, state programs and the private sector. This single environmental laboratory standard is a uniform standard for all laboratories and accreditation bodies.

The standard developed by TNI incorporates current state program requirements and the former International Standards Organization (ISO) standard ISO/IEC 17025:2005, "General Requirements for the Competence of Calibration and Testing Laboratories." The standard includes all quality assurance (QA) policies and quality control (QC) procedures that must be presented in either a QA Manual or laboratory procedures to help ensure and document the quality of the data produced.

Laboratories seeking accreditation under NELAP or TNI recognized Non-governmental Accreditation Body (NGAB) must assure implementation of the TNI EL Standard requirements in Volume 1. The management system policies and elements found in Volume 1 are applicable to environmental laboratories regardless of the size and complexity.

This course has been revised and materials updated to meet the requirements of the 2016 TNI Environmental Laboratory Standard for basic assessor training.

The TNI EL standards may be downloaded from the web at www.nelac-institute.org. Volume 1 and Volume 2 are reviewed during this course. Specific link to the 2016 TNI Environmental Laboratory (EL) Standard:

https://www.nelac-institute.org/content/CSDP/standards.php

The TNI Checklist (2016 TNI Version in Excel) may be downloaded from the TNI website after purchase of the 2016 TNI EL Standard. This may be used in the class exercises and may be electronic. The 2016 TNI EL Standard Volume 1 and Volume 2 are used throughout this course. Volume 1 and the course book may be used for the exams in either electronic or hardcopy format.

Class start and end times may vary depending on student's request.
Students are requested to read the TNI standards before class.

Course Revision Date: 11/28/22

COURSE AGENDA (DRAFT)

(Final Agenda Will Be Sent one week prior to Class)

`Day 1 – October 16, 2023 (11 am to 4 pm eastern) All times stated in eastern time zone

On Day 1, please join 15-20 minutes early

Preliminary Examination (25 questions – 1 point each correct answer) (30 minutes.) This is an open Book exam

- Introduction
  - Objectives
  - The Environmental Laboratory (EL) standard
  - Terms and Definitions
- Chapter 1: Assessor Competency Performance (V2M1 and V2M3)
  - Qualifications, Training, Knowledge, Ethics
  - Skills and Handling Difficult Situations
  - Pop-up Quiz 1: Three questions related to performing assessment
- Chapter 2: Assessment Process (V2M3)
  - Planning, Conducting, Reporting,
  - Completing the Process Checklist
  - Writing Non-conformances Examples
  - Pop-up Quiz 2: Three questions related to writing nonconformances

Any Questions on the above

BREAKOUT Exercise 1 (Writing non-conformance practice) from 1:30 to 2:15 pm eastern in breakout room, 45 minutes. Break 2:15 to 2:30 pm

Return to large group from 2:30 until 3:30 pm eastern. In Large group present and discuss exercise 1.

EXERCISE 2 (Write Nonconformances on your own) Five points

Scored for Grade - Follow instruction on the worksheet. Class ends at 3:45 Students complete Exercise 2 and return Exercise to Instructor & TNI Training before class starts tomorrow.

Preparation for tomorrow's class – Read the QAM Exercise 3 and study standard

Day 2 – October 17, 2023 (11 am to 4 pm eastern)

Any Questions from Day 1 Review Preliminary Examination

- Chapter 3: Proficiency Testing (PT) (V1M1)
  - Reviewing PT data
  - Understanding reporting limits
  - Review how to use PT data for an assessment
  - Pop-up Quiz 3: Three questions related to Proficiency Testing
- Chapter 4: Management System Elements (V1M2 Section 4)
  - Organization, Management,
  - Administration of Laboratory Records and Document Control
  - Improvement, Preventive Action, Corrective Action, Internal Audits,
  - Management Review, Data Integrity
  - Pop-up Quiz 4: Three questions related to management requirements

Any Questions on the above

EXERCISE 3 (QAM Review Team): **Five points** Prepare for assessment on your own - 30 minutes Prepare to work together for Exercise 3 (2:30 to 3:00 eastern)

BREAKOUT 45 minutes (3 pm eastern) Complete Exercise 3 Write non-conformance(s) together in group. Class ends at 3:45 pm or when group finishes

Scored for Grade Follow instruction on the worksheet. **Each Group** returns the Exercise to Instructor & TNI Training before class starts tomorrow.

Preparation for tomorrow's class – Read Exercise 4 and study standard

Day 3 – October 18, 2023 (11 am to 4 pm eastern)

Review Day 1 Exercise 2 Results

- Chapter 5: Technical Elements (V1M2 Section 5) (V1M3-M7)
  - Personnel, Method Selection, Quality Control
  - Traceability-Methods, Sample, Data, Standards, Lab Process
  - Modules 3 to 7 Overview - review Module 4 and 5
  - Pop-up Quiz 5: Three questions related to technical requirements

Any Questions on the above or related to Day 1 and 2.

EXERCISE 4 (Data Interviews pH & TSS) (on your own) Ten (10) points - Interviewing to Gather Objective Evidence Total 2.5 hours (1:30 to 4 pm eastern**) Assessors must time manage!**

BREAKOUT Set-up lab group and assessor groups Complete Exercise 4 using interviews and information provided.
Assessor go to breakout session assigned (3-5 individuals in group) 1:30 pm
Labs go to breakout session (3-5 individuals - one from each group) 1:30 pm

60 minutes - Lab personnel and assessors prepare for the assessment 15 minutes break during exercise (BREAK 2:30 to 2:45 pm)- Labs go to breakout session

Each lab person joins the assessors in the breakout room 2:45 pm eastern

60 minutes Assessors interview lab person related to pH and TSS methods

End of Day – Each person writes non-conformances on your own (see exercise instruction) 3:45 to 4:00 pm work on your own to write non-conformances. - Return Exercises to Instructor & TNI Training before the start of the next class.

EXERCISE 4 (pH & TSS) (on your own) - ten (10) points of final score

Scored for Grade. Follow instruction on the worksheet.

Preparation for tomorrow's class – Study the standard and course materials

Day 4 – October 19, 2023 (11 am to 4 pm eastern)

Review Day 2 Exercise 3 Results

- Chapter 6: TNI EL Standard and TNI Consensus TNI Standard Development
  - Assessment Process (TNI Volume 2 Modules 1-3)
  - Conformance to Laboratory Standard (TNI Volume 1 Modules 1-7)
  - Standard Interpretation Requests (SIR)
  - Pop-up Quiz 6: Three questions related to TNI standard development
- Chapter 7: Laboratory Assessment (V1M1-M7)
  - Documentation and Data Review
  - Conformance Evaluation Effectiveness of Management System
  - Prepare for the final exam for tomorrow

- Pop-up Quiz 7: Three questions related to performing assessments

Exercise 5 (Microbiological Data Team) Five points Scored for Grade : Each **Group** returns the Exercise to Instructor & TNI Training before class starts tomorrow. Follow instruction on the worksheet.

BREAKOUT 45 minutes (2:30 pm start) Complete Exercise 5 Write non-conformance(s) together in group. Return to main room when finished,

EXERCISE 6 Start Exercise at 3:15 . Review as class No Score. Class ends at 4:00 PM

Preparation for tomorrow's class – Study the standard and course materials

Day 5 – October 20, 2023 (11 am to 2 pm eastern)

Any Questions

- Chapter 8: Conclusion Test 11:15 to 12:15 pm
  - **Scoring Review**
  - **Final Examination (50 questions – 1.0 point each correct answer)**
  - **Review Exercises and final exam**

This is an Open Book exam. This is a timed test – Start test at 11:15 end at 12:15

You do not have time to look up all Answers
Return to instructor and TNI Training at the end of 1 hour (or by 12:20)

Review of Final Examination and Exercises 4 & 5 returned for scoring

END CLASS

Students are requested to read the TNI standards Volume 1 and 2 the Student book and slides before and during class.
Bring your questions to class

Date:1/24/23

Pretest = 25 points toward total final score

Exercises = 25 points toward total final score

Final Test = 50 points toward total final score

COURSE NOTES

Course starts promptly each day at 11:00 a.m. eastern time.

On Day 1, please join in 15-20 minutes early so you can ensure your system access and sound are working properly.

Class ends each day at 4:00 p.m. eastern time.

Students must attend all sessions

*Students who are **not** required to achieve a passing score do not need to stay for the review of the final exam and exercises at the end of day 5.*

Day 1 through Day 4 students should prepare for the final exam each evening.

At the end of Day, students should prepare for the final exam by reading and reviewing the course materials.

Pretest score is 25% of your final grade.

Students should read TNI Environmental Laboratory Standard Volume 1 and 2. Students are expected to be thoroughly familiar with the TNI standards before arrival at the course. If students are not familiar with the TNI standard please browse the TNI website to obtain additional information.

Exercises score is 25% of your final grade.

Students must complete the five exercises at the end of the days assigned in order to receive credit for this part of the score. Exercises are graded by the instructor and the exercises include extra credit options.

Final Exam score is 50% of your final grade.

You must obtain a 70% score on the exams and exercises to "successfully complete" the course. (NELAP and NGAB's assessors: You are required to have successfully completed a basic assessor-training course.)

All students receive a certificate of course attendance if not successful in completing the examination or exercises. Total class time is 23 hours with approximately 4 hours of after class exercises.

Students with test scores of greater than or equal to 70% receive a certificate of course completion.

This course is approved by TNI, but it is up to each accreditation body to approve a basic assessor-training course in order to qualify its assessors

State accreditation body assessors have attended this class. Accreditation bodies have accepted this course for meeting the basic assessor training requirements of its assessors.

This course was prepared in accordance with the TNI standard.

Have available During class: Hard copy or electronic copy of the 2016 TNI Environmental Laboratory Standard Volume 1 and Volume 2. Materials (Exercises, checklist, course book, evaluation) are emailed to you prior to the start of the class.

Students must come to class knowing the contents of the TNI standard in order to successfully complete the course.

LOGISTICS

Dates: October 16 - 20, 2023

Instructor: Marlene Moore, President, Advanced Systems, Inc.

Contact: **mmoore@advancedsys.com**

Class size is limited to 15 students (Register early)
if the class is full you will be placed on a waiting list and added to the next class roster if there are no cancelations for this class.)

Location: WebEx Training

TNI Contact: Ilona Taunton: ilona.taunton@nelac-institute.org

Webex: Invitation will be sent on Friday the week before class is to start. Please watch for the invitation in your email or spam/junk mail

Hours: Class time 11:00 AM to 4 PM Eastern

Some exercises are completed after hours: 4 pm to 5 pm and 8 am to 10 am (all times are presented in eastern time)

Breaks are scheduled about every 1 to 2 hours. The instructor is available outside of class hours to answer questions via email: mmoore@advancdsys.com