

# 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 **August 23 to August 27, 2021**.  
**PLEASE SIGN UP BY: August 9, 2021.**



Registration information: [www.nelac-institute.org](http://www.nelac-institute.org)  
 Register on-line: <https://iattend.net/EventHome?id=assess21-Aug>  
 For Questions Email: [mmoore@advancedsys.com](mailto:mmoore@advancedsys.com)  
 This Course will be held: via TNI WebEx- Invitation after registration

## Please enroll me in the following Course

**AUGUST 23 TO AUGUST 27, 2021**

“Environmental Laboratory Assessments – Basic Assessor Training”

**\$450 per person for Federal, State and Local Governments**  
**\$550 per person for TNI members**  
**\$700 per person for TNI Non-members**

**Each person is required to purchase 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 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=assess21-Aug>

**Administrative Support:** Payment made to The NELAC Institute at [www.nelac-institute.org](http://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

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This course provides examples and a basic understanding of the assessment processes, within the National Environmental Laboratory Accreditation Program (NELAP) framework. 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.

Upon successful completion of training, participants should be familiar with the specific requirements of TNI standards, and the criteria for the application of these requirements to their assigned role as an assessor.

The rationale for assessing must be based on proven quality principles 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

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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](http://www.nelac-institute.org). Click on "Standards", "Standards Home" to find the 2016 TNI Standards. The standard is purchased from TNI with the full version of the 2016 TNI standard including the ISO/IEC 17025:2005 and ISO/IEC 17011:2004 language.

Specific link to the 2016 TNI Environmental Laboratory (EL) Standard:

<http://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. A hardcopy of these Standards is required for the final examination.

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: 1/25/21

## COURSE AGENDA

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### Day 1 – August 23, 2021 (11 am to 4:00 pm eastern)

Chapter 1: Introduction to TNI EL Standard and TNI

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

TNI Standard Development  
Assessment Process (TNI Volume 2 Module 1-3)  
Conformance to Laboratory Standard (TNI Volume 1 Module 1-7)

Chapter 2: Assessor Competency Performance

Qualifications, Training, Knowledge Ethics  
Skills and Handling Difficult Situations

Chapter 3: Assessment Process (V2M3)

Planning, Conducting, Reporting, Completing the Process  
Checklist  
Writing Non-conformances

***Any Questions on the above:***

#### **EXERCISE**

**BREAKOUT Exercise 1** from 2:30 to 3:00 pm eastern in breakout room, 30 minutes  
(Return to large group from 3:00 until 4:00 pm eastern)  
In Large group present and discuss exercise 1.

**EXERCISE 2 (on your own) ten (10) points or five (5) points of final score**  
Scored for Grade - Return Exercise to Instructor & TNI Training before class starts tomorrow. Follow instruction on the worksheet.

### Day 2 – August 24, 2021 (11 am to 4:00 pm eastern)

Chapter 4: Proficiency Testing (PT) (V1M1)

Reviewing PT data  
Understanding reporting limits  
Review how to use PT data for an assessment

Chapter 5: 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

**Any Questions on the above:**

### **EXERCISE – Interviewing to Gather Objective Evidence**

**BREAKOUT Complete Exercise 3 and 4 using interviews and information provided. Set-up lab group and assessor groups**

Total 3 hours (1 to 4 pm eastern) Assessors must time manage!

Assessor go to breakout session assigned (3-5 groups)

Labs stay in main room (3-5 individuals - one from each group)

60 minutes - Lab personnel and assessors prepare for the assessment 15 minutes  
break during exercise - Labs go to breakout session

Each lab person joins the assessors in the breakout room

**60 minutes Assessors interview lab person - two test methods**

**End of Day – Each person write findings (see exercise instruction)**

**EXERCISE 3 (pH) & EXERCISE 4 (TSS) (on your own) twenty (20) points or ten (10) points of final score**

Scored for Grade - Return Exercises to Instructor & TNI Training before the start of the next class. . Follow instruction on the worksheet.

*Preparation for tomorrow's class – Read the QAM Exercise 5*

**Day 3 – August 25, 2021 (11 am to 4 pm eastern)**

**Review Day 1 Exercise 2 Results**

Chapter 6: Technical Elements (V1M2 Section 5) (V1M3-M7)

Personnel

Method Selection

Quality Control

Traceability-Methods, Sample, Data, Standards, Process

**Any Questions on the above:**

**EXERCISE 5 (QAM Review)** Prepare for assessment on your own - 30 minutes  
Prepare to work together for Exercise 5

**BREAKOUT** 45 minutes Complete Exercise 5 Write finding(s) together in group.

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

Day 4 – August 26, 2021 (11 am to 4 pm eastern)

**Review Day 2 Exercise 3 & 4 Results**

Chapter 7: Laboratory Assessment (V1M1-M7)

Documentation and Data Review Conformance Evaluation  
Effectiveness of Management System  
Prepare for the final exam for tomorrow

**EXERCISE 6 Review Microbiological Data** 30 minutes on Your Own

**BREAKOUT** 45 minutes Complete Exercise 6 Write finding(s) together in group

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

**EXERCISE 7**  
Complete Exercise 7 in class

**Any Questions:**

**STUDY FOR TEST TOMORROW**

Day 5 – August 27, 2021 (11 am to 1 pm eastern)

**Any Questions:**

Chapter 8: Conclusion

**Questions and Final Comments**

**Scoring Review**

Final Examination (50 questions – 1.0 point each correct answer)

**DO NOT USE THE STANDARD OR COURSE MATERIALS FOR THIS EXAM.** Return to instructor and TNI Training at the end of 1 hour

**Review of Final Examination and Exercises 5 & 6 returned for scoring**

**END CLASS**

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

**Exercises = 25 points toward total final score**

**Pretest = 25 points toward total final score**

**Final Test = 50 points toward total final score**

## COURSE NOTES

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

Lunch is scheduled for 30 minutes each day.

*Lunch is on your own.*

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

*Students must attend all sessions*

*Students are not required to attend 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 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 20 hours with approximately 4 hours of after class exercises.

Students with test scores of greater than 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 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. **Computer use of the standards and course book is not allowed during the final exam.**

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

## **LOGISTICS**

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**Dates:** August 23 TO August 27, 2021

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

**Location:** WebEx

**TNI Contact:** Ilona Taunton  
[ilona.taunton@nelac-institute.org](mailto:ilona.taunton@nelac-institute.org)

**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**

Breaks are scheduled about every 1 to 2 hours. Lunch is 30 minutes at noon each day. The instructor is available after class hours to answer questions via email: [mmoore@advancdsys.com](mailto:mmoore@advancdsys.com)