

2019-2020 Assessment Cycle

## Assessment Plan

### Mission Statement

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The primary mission of the **National Technical Institute for the Deaf** is to provide deaf and hard-of-hearing students with outstanding state-of-the-art technical and professional education programs, complemented by a strong arts and sciences curriculum, that prepare them to live and work in the mainstream of a rapidly changing global community and enhance their lifelong learning.

Secondarily, NTID prepares professionals to work in fields related to deafness; undertakes a program of applied research designed to enhance the social, economic and educational accommodation of deaf people; and shares its knowledge and expertise through outreach and other information dissemination programs.

The LST program was developed from an industrial perspective and is focused on preparing deaf and hard-of-hearing students for careers in the laboratory testing field.

### Measures

#### Laboratory Science Technology AAS/AOS Program Outcome Set

Develop and document laboratory skills appropriate for technician-level training including safety quality control, technical communication, and professional readiness

#### Outcome: 1. Demonstrate adherence to quality control procedures

- ▼ **Measure:** Quantitative Instrumental Analysis Course [NLST-250] - Lab Report  
*Course level Direct - Student Artifact*

Details/Description:

Acceptable Benchmark: 80% of students will earn a grade of 80% or better on the holmium oxide quality control lab report

Implementation Plan (timeline): Annually

Key/Responsible Personnel: Collected by LST Assessment Coordinator or Program Director

**Outcome: 2. Manipulate and interpret laboratory data using Microsoft Excel or a similar software**

▼ **Measure:** Laboratory Mathematics Course [NLST-232] - Lab Activity  
*Course level Direct - Student Artifact*

Details/Description:

Acceptable Benchmark: 80% of students will earn a grade of 80% or better on the semi-logarithmic plotting lab activity

Implementation Plan (timeline): Annually

Key/Responsible Personnel: Collected by LST Assessment Coordinator or Program Director

Demonstrate use of analytical instrumentation including: electroanalytical, spectroscopy, and chromatography instruments

**Outcome: 3. Demonstrate processes & procedures to setup, run, & maintain selected electroanalytical probes/meters, molecular spectrophotometers, ... atomic spectrophotometers, high performance liquid chromatographers, and gas chromatographers**

▼ **Measure:** Quantitative Instrumental Analysis Course [NLST-250] - Exam  
*Course level Direct - Exam*

Details/Description:

Acceptable Benchmark: 80% of students will earn a grade of 80% or better on the course exam that covers spectroscopy

Implementation Plan (timeline): Annually

Key/Responsible Personnel: Collected by LST Assessment Coordinator or Program Director

Demonstrate analytical chemical processes

Students will be able to demonstrate mastery of analytical chemical processes including volumetric, gravimetric, titrimetric, distillation, and sample preparation techniques

**Outcome: 4. Perform sample preparation procedures and the corresponding calculations**

▼ **Measure:** Analytical Chemistry Course [NLST-220] - Lab Project  
*Course level Direct - Student Artifact*

Details/Description:

Acceptable Benchmark: 80% of students will complete their final laboratory project and earn a grade of 80% or higher.

Implementation Plan (timeline): Annually

Key/Responsible Personnel: Collected by LST Assessment Coordinator or Program Director

**Outcome: 5. Perform distillations and the corresponding calculations**

- ▼ **Measure:** Principles of Organic Chemistry [NLST-230] - Lab Reports and Ancillary Course Material in the LST Portfolio  
*Course level Direct - Portfolio*

|                                 |   |
|---------------------------------|---|
| Details/Description:            | Review of laboratory reports and ancillary course material found in the LST Portfolio   |
| Acceptable Benchmark:           | 80% of students will achieve a grade of 80% or better on the simple distillation of hexane, toluene, and 1-octanol lab report |
| Implementation Plan (timeline): | Annually  |
| Key/Responsible Personnel:      | Collected by LST Assessment Coordinator or Program Director   |

Demonstrate biological & biotechnology-related techniques including: sterile technique & manipulation of proteomic & genomic material

### **Outcome: 6. Perform proteomic and genomic manipulation techniques**

- ▼ **Measure:** Biotechnology II Course [NLST-245] - Lab Report  
*Course level Direct - Student Artifact*

|                                 |  |
|---------------------------------|--|
| Details/Description:            |  |
| Acceptable Benchmark:           | 80% of students will achieve a grade of 80% or better on the plasmid mini-prep purification lab report |
| Implementation Plan (timeline): | Annually   |
| Key/Responsible Personnel:      | Collected by LST Assessment Coordinator or Program Director  |

## Outcome: 7. Demonstrate appropriate microscopy technique, including sample preparation and equipment use

- ▼ **Measure:** Fundamentals of Biology I Course [NSCI-161] - Lab Report  
*Course level Direct - Student Artifact*

Details/Description:

Acceptable Benchmark: 80% of students will achieve a grade of 85% or better on the protozoa identification lab report

Implementation Plan (timeline): Annually

Key/Responsible Personnel: Collected by LST Assessment Coordinator or Program Director

Develop professional skills required to be effective on the job

## Outcome: 8. Engage productively in a collaborative team project

- ▼ **Measure:** LST Co-op Work Experience [NLST-299] - RIT Supervisor Co-op Evaluation  
*Course level Direct - Other*

Details/Description:

Acceptable Benchmark: 80% of students will score a "3" or higher (5 point scale) on "Works effectively in groups toward common goals and needs," from co-op supervisor evaluation.

Implementation Plan (timeline): Annually

Key/Responsible Personnel: Collected by LST Assessment Coordinator or Program Director

**Outcome: 9. Apply technical knowledge and communication skills on a cooperative work experience**

- ▼ **Measure:** LST Co-op Work Experience [NLST-299] - RIT Supervisor Co-op Evaluation  
*Course level Direct - Other*

Details/Description:

Acceptable Benchmark: 80% of students will successfully complete a program-related work experience and receive a score of "3" or higher (5 point scale) on Overall Co-op Performance

Implementation Plan (timeline): Annually, end of summer.

Key/Responsible Personnel: Collected by NTID Center on Employment (NCE)

**Outcome: 10. Gain entry level employment in the laboratory science field**

- ▼ **Measure:** NCE Job Placement Data

Details/Description:

Acceptable Benchmark: 90% of graduates who are seeking employment in the laboratory science field will be employed.

Implementation Plan (timeline): Annually, Spring semester starting 2016/2017

Key/Responsible Personnel: Collected by NTID Center on Employment (NCE)

Personnel:

## Outcome: 11. Assess program preparation and course satisfaction

▼ **Measure:** Student Satisfaction Survey  
*Program level Indirect - Survey*

Details/Description:

Acceptable Benchmark: 80% of students will indicate they Strongly Agree or More Agree than Disagree (4-point scale) when asked to give an overall rating on two global items, one related to the program in general and the other related to the courses in the major.

Implementation Plan (timeline):

Annually, fall semester starting 2015/2016. Administer the survey in the spring of the second year as part of NLST-260 Lab Methods.

Key/Responsible Personnel:

Collected by LST Assessment Coordinator or Program Director

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