Rochester Institute of Technology AMS » National Technical Institute for the Deaf » Engineering Studies Computer Aided Drafting Technology AAS/AOS Program

# 2018-2019 Assessment Cycle Assessment Plan

#### **Mission Statement**

## **Mission Statement - Engineering Studies**

## **Primary Vision**

The Department of Engineering Studies will be a leader in providing technical education, academic support, and encouragement to prepare deaf and hard-of-hearing students for careers in engineering, engineering technology and engineering-related fields.

### **Mission Statement**

The Department of Engineering Studies' mission is to provide the best academic experience for our students' growth and achievement during their learning experiences at RIT/NTID in preparation for a successful career.

The Department of Engineering Studies will offer intensive real-world practices in technical classes taught by experienced faculty who communicate well with deaf and hard-of-hearing students. They provide opportunities for students to develop skill sets that are in demand by industry. Students gain fundamental skills for entry-level positions within engineering and engineering technology fields as well as advanced learning opportunities offered through the other colleges of RIT.

#### Measures

#### Computer Aided Drafting Technology AAS/AOS Program Outcome Set

Develop the ability to produce accurate 2-D drawings and Building Information Modeling (BIM) projects

**Outcome: Use CAD to produce 2D technical drawings** 

Printed on: 5/5/2020 6:17:42 PM Created with Watermark Measure: Engineering Graphics [NCAD-150]
Course level Direct - Student Artifact

| Details/Description:               | Technical Drawing Practical.<br>Practical grade.                                  |
|------------------------------------|---|
| Acceptable Benchmark:              | 80% of students will score 75% or better on final practical grade                 |
| Implementation Plan<br>(timeline): | Collection: annually at end of fall semester.<br>Spreadsheet for data collection. |
| Key/Responsible<br>Personnel:      | Data collected by Assessment Coordinator  |

Outcome: Extract and modify orthographic technical drawings from a BIM model

Measure: Construction CAD III [NCAD-230]
Course level Direct - Portfolio

| Details/Description:               | Final Project Review of Construction Documents.<br>Project grade.                 |
|------------------------------------|---|
| Acceptable Benchmark:              | 80% of students will score 75% or better on final project review grade            |
| Implementation Plan<br>(timeline): | Collection: annually at end of fall semester.<br>Spreadsheet for data collection. |
| Key/Responsible<br>Personnel:      | Data collected by Assessment Coordinator  |

Outcome: Create and use a BIM project to produce detailed sections and other details



Measure: Advanced Construction CAD [NCAD-240]
Course level Direct - Student Artifact

| Details/Description:               | Course embedded final project.<br>Project grade.                                  |
|------------------------------------|---|
| Acceptable Benchmark:              | 80% of students will score 75% or better on final project grade                   |
| Implementation Plan<br>(timeline): | Collection: annually at end of fall semester.<br>Spreadsheet for data collection. |
| Key/Responsible<br>Personnel:      | Data collected by Assessment Coordinator  |

Develop supporting skills typical of a technician in the field of architecture, civil engineering, and construction

**Outcome: Identify characteristics of common construction materials** 

Measure: Construction Materials and Methods II [NCAD-265]
Program level Direct - Exam

| Details/Description:               | Final Exam.<br>Exam grade.  |
|------------------------------------|---|
| Acceptable Benchmark:              | 80% of students will score 75% or better on course final exam                       |
| Implementation Plan<br>(timeline): | Collection: annually at end of spring semester.<br>Spreadsheet for data collection. |
| Key/Responsible<br>Personnel:      | Data collected by Assessment Coordinator  |

Outcome: Gather information from technical drawings and from the field

Measure: Data Collection and Analysis [NCAD-108]
Course level Direct - Exam

| Details/Description:               | Final Exam.<br>Exam Grade.  |
|------------------------------------|---|
| Acceptable Benchmark:              | 80% of students will score 75% or better on final exam                              |
| Implementation Plan<br>(timeline): | Collection: annually at end of spring semester.<br>Spreadsheet for data collection. |
| Key/Responsible<br>Personnel:      | Data collected by Assessment Coordinator  |

Outcome: Identifiy issues related to sustainability in the construction industry

Measure: Energy Modeling for Sustainable Construction [NCAD-245]
Course level Direct - Exam

| Details/Description:               | Sustainability Exam.<br>Exam grade.   |
|------------------------------------|---|
| Acceptable Benchmark:              | 80% of students will score 75% or better on sustainability exam                     |
| Implementation Plan<br>(timeline): | Collection: annually at end of spring semester.<br>Spreadsheet for data collection. |
| Key/Responsible<br>Personnel:      | Data collected by Assessment Coordinator  |

Develop the skills to create and deliver presentations

Outcome: Develop a portfolio of student projects in both hard copy and electronic form

Measure: Job Search Process for CADT [NCAD-201]
Course level Direct - Portfolio

| Details/Description:               | Student Portfolio.<br>Portfolio review grade.                                       |
|------------------------------------|---|
| Acceptable Benchmark:              | 80% of students will score 75% or better on portfolio review                        |
| Implementation Plan<br>(timeline): | Collection: annually at end of spring semester.<br>Spreadsheet for data collection. |
| Key/Responsible<br>Personnel:      | Data collected by Assessment Coordinator  |

Outcome: Generate quality renderings and animations from CAD and BIM projects

Measure: Presentation Graphics [NCAD-250]
Course level Direct - Student Artifact

| Details/Description:               | Final project presentation.<br>Final project presentation grade.                  |
|------------------------------------|---|
| Acceptable Benchmark:              | 80% of students will score 75% or better on final project grade                   |
| Implementation Plan<br>(timeline): | Collection: annually at end of fall semester.<br>Spreadsheet for data collection. |
| Key/Responsible<br>Personnel:      | Data collected by Assessment Coordinator  |

Printed on: 5/5/2020 6:17:42 PM Created with Watermark Develop positive skills required to be effective on the job

# Outcome: Apply technical knowledge and skills on a co-op work experience

 Measure: Co-op Work Experience [NCAD-299] - RIT Supervisor Online Co-op Evaluation System
Course level Direct - Other

| Details/Description:               | Performance on the job   |
|------------------------------------|--|
| Acceptable Benchmark:              | 80% of students will meet or exceed overall satisfactory score on co-op job              |
| Implementation Plan<br>(timeline): | Collection: annually at end of summer.<br>RIT Supervisor Online Co-op Evaluation System. |
| Key/Responsible<br>Personnel:      | Data collected by NTID Center on Employment (NCE)  |

# Outcome: Indicate satisfaction with program and courses

| • | Measure: Student Satisfaction Survey |
|---|--------------------------------------|
|   | Program level Indirect - Survey      |

| Details/Description:               | Upon completion of final semester.<br>Survey results.                                     |
|------------------------------------|---|
| Acceptable Benchmark:              | 80% of students will rate all aspects of the program and courses as satisfactory or above |
| Implementation Plan<br>(timeline): | Collection: annually near the end of fall semester.<br>Survey results summary.            |

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