## 2014-2015 Assessment Cycle

### Key Findings

#### Finding per Measure

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

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

<table>
<thead>
<tr>
<th>Use CAD to produce 2D technical drawings</th>
<th>Measure: Engineering Graphics [NCAD-150] - Technical Drawing Practical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course level; Direct - Student Artifact</td>
<td>Details/Description: Technical drawing practical. Practical grade.</td>
</tr>
<tr>
<td></td>
<td>Acceptable Benchmark: 80% of students will score 75% or better on final practical grade</td>
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<tr>
<td></td>
<td>Key/Responsible Personnel: Data collected by Assessment Coordinator</td>
</tr>
</tbody>
</table>

**Findings** for Engineering Graphics [NCAD-150] - Technical Drawing Practical

**Summary of Findings:** 100% of students scored 75% or better on the final practical assignment.

**Results:** Acceptable Benchmark Achievement: Met

**Recommendations:**

**Reflections/Notes:**

<table>
<thead>
<tr>
<th>Extract and modify orthographic technical drawings from a BIM model</th>
<th>Measure: Construction CAD II [NCAD-220] - Final Portfolio Review of Construction Documents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course level; Direct - Portfolio</td>
<td>Details/Description: Portfolio grade</td>
</tr>
<tr>
<td></td>
<td>Acceptable Benchmark: 80% of students will score 75% or better on final portfolio review grade</td>
</tr>
<tr>
<td></td>
<td>Key/Responsible Personnel: Data collected by Assessment Coordinator</td>
</tr>
</tbody>
</table>

**Findings** for Construction CAD II [NCAD-220] - Final Portfolio Review of Construction Documents

**Summary of Findings:** 90% of the students (n=10) scored better than 75% on their final portfolio review.

**Results:** Acceptable Benchmark Achievement: Met

**Recommendations:**

**Reflections/Notes:**

Printed on: 11/17/2015 03:12:20 PM (EST)
**Generate reports on information contained in a BIM model**

**Measure:** Construction CAD II [NCAD-220] - Course Embedded Assignments
Course level; Direct - Student Artifact

**Details/Description:** Course embedded assignments. Rubric scale 1-5.

**Acceptable Benchmark:** 80% of students will score 3 or more on the rubric scale 1-5.

**Implementation Plan (timeline):** Collection: annually at end of fall semester beginning AY 2014/2015. Spreadsheet for data collection.

**Key/Responsible Personnel:** Data collected by Assessment Coordinator

### Findings for Construction CAD II [NCAD-220] - Course Embedded Assignments

**Summary of Findings:** 100% of the students (n=10) scored a 3 or better on the assignments.

**Results:** Acceptable Benchmark Achievement: Met

**Recommendations:**

**Reflections/Notes:**

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**Create a BIM project based on preliminary information**

**Measure:** Advanced Construction CAD [NCAD-240] - Course Embedded Project
Course level; Direct - Student Artifact

**Details/Description:** Project grade

**Acceptable Benchmark:** 80% of students will score 75% or better on final project grade.

**Implementation Plan (timeline):** Collection: annually at end of fall semester beginning AY 2015/2016. Spreadsheet for data collection.

**Key/Responsible Personnel:** Data collected by Assessment Coordinator

### Findings for Advanced Construction CAD [NCAD-240] - Course Embedded Project

**Summary of Findings:** 83% of the students (n=6) scored 75% or better on the final project.

**Results:** Acceptable Benchmark Achievement: Met

**Recommendations:**

**Reflections/Notes:**

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**Use a BIM project as a basis to produce detailed sections and other details**

**Measure:** Advanced Construction CAD [NCAD-240] - Final portfolio review of construction documents
Course level; Direct - Portfolio

**Details/Description:** Portfolio grade

**Acceptable Benchmark:** 80% of students will score 75% or better on final portfolio review grade

**Implementation Plan (timeline):** Collection: annually at end of fall semester beginning AY 2015/2016. Spreadsheet for data collection

**Key/Responsible Personnel:** Data collected by Assessment Coordinator

### Findings for Advanced Construction CAD [NCAD-240] - Final portfolio review of construction documents
**Summary of Findings**: 67% of the students scored a 75% or better on the final portfolio review.

**Results**: Acceptable Benchmark Achievement: Not Met

**Recommendations**: Students need to be reminded during the semester to keep their portfolios up to date.

**Reflections/Notes**: A few students did not update their portfolios.

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**Measure**: Data Collection and Analysis [NCAD-108] - Final Dimensioning Practical

**Course level**: Direct - Student Artifact

**Details/Description**: Practical grade

**Acceptable Benchmark**: 80% of students will score 75% or better on final dimensioning practical grade


**Key/Responsible Personnel**: Data collected by Assessment Coordinator

**Findings for Data Collection and Analysis [NCAD-108] - Final Dimensioning Practical**

**Summary of Findings**: 83% of the students scored 75% or better on the dimensioning practical

**Results**: Acceptable Benchmark Achievement: Met

**Recommendations**:

**Reflections/Notes**:

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**Measure**: Data Collection and Analysis [NCAD-108] - Final Vocabulary Exam

**Course level**: Direct - Exam

**Details/Description**: Exam grade

**Acceptable Benchmark**: 80% of students will score 75% or better on final vocabulary exam grade


**Key/Responsible Personnel**: Data collected by Assessment Coordinator

**Findings for Data Collection and Analysis [NCAD-108] - Final Vocabulary Exam**

**Summary of Findings**: 75% of the students (n=12) scored 80% or better on the vocabulary exam.

**Results**: Acceptable Benchmark Achievement: Not Met

**Recommendations**: More vocabulary practice.

**Reflections/Notes**:

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**Develop the skills to acquire, record and analyze information derived from field measurements, existing drawings & other technical documents**

**Create and interpret dimensions for technical drawings**

**Define appropriate technical vocabulary as used by the construction industry**

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Field measure and input existing space conditions into CAD

**Measure:** Data Collection and Analysis [NCAD-108] - Course project
Course level; Direct - Student Artifact

**Details/Description:** Project grade

**Acceptable Benchmark:** 80% of students will score 75% or better on course project grade.

**Implementation Plan (timeline):** Collection: annually at end of spring semester beginning AY 2013/2014
Spreadsheet for data collection

**Key/Responsible Personnel:** Data collected by Assessment Coordinator

**Findings** for Data Collection and Analysis [NCAD-108] - Course project

**Summary of Findings:** 83% of the students (n=12) scored 75% or better on the project grade.

**Results:** Acceptable Benchmark Achievement: Met

**Recommendations:**

**Reflections/Notes:**

Research technical information and incorporate into drawings and documentation

**Measure:** Advanced Construction CAD [NCAD-240] - Design project
Course level; Direct - Student Artifact

**Details/Description:**

**Acceptable Benchmark:** 80% of students will score 3 or above on incorporating technical information into design project. Rubric scale: 1-5.

**Implementation Plan (timeline):** Collection: annually at end of fall semester beginning AY 2015/2016
Spreadsheet for data collection

**Key/Responsible Personnel:** Data collected by Assessment Coordinator

**Findings** for Advanced Construction CAD [NCAD-240] - Design project

**Summary of Findings:** 83% of the students (n=6) scored 3 or better on the final design project

**Results:** Acceptable Benchmark Achievement: Met

**Recommendations:**

**Reflections/Notes:**

Understand the basic characteristics of construction materials and procedures

Identify various construction materials using correct terminology

**Measure:** Construction Materials and Methods II [NCAD-265] - Terminology Exam
Course level; Direct - Exam

**Details/Description:** Exam grade

**Acceptable Benchmark:** 80% of students will score 75% or better on terminology exam

**Implementation Plan (timeline):** Collection: annually at end of spring semester beginning AY 2014/2015
Spreadsheet for data collection

**Key/Responsible Personnel:** Data collected by Assessment Coordinator

**Findings** for Construction Materials and Methods II [NCAD-265] - Terminology Exam

**Summary of Findings:** Only 50% of the students scored 75% or better on the
vocabulary exam.

**Results:** Acceptable Benchmark Achievement: Not Met

**Recommendations:** More vocabulary review is needed.

**Reflections/Notes:** Deaf and H-of-H students typically struggle with vocabulary. They need to see a greater connection visually with terminology rather than simply giving them a definition.

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**Identify characteristics of common construction materials**

**Measure:** Construction Materials and Methods II [NCAD-265] - Final Exam

Program level; Direct - Exam

**Details/Description:** Exam grade

**Acceptable Benchmark:** 80% of students will score 75% or better on course final exam

**Implementation Plan (timeline):** Collection: annually at end of spring semester beginning AY 2014/2015. Spreadsheet for data collection.

**Key/Responsible Personnel:** Data collected by Assessment Coordinator

**Findings for Construction Materials and Methods II [NCAD-265] - Final Exam**

**Summary of Findings:** 80% of students (n=10) scored 75% or better on the final exam.

**Results:** Acceptable Benchmark Achievement: Met

**Recommendations:**

**Reflections/Notes:**

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**Develop the skills to create and present visualization materials**

**Measure:** Construction CAD III [NCAD-230] - Student Portfolio

Course level; Direct - Portfolio

**Details/Description:**

**Acceptable Benchmark:** Portfolio review grade 80% of students will score 75% or better on portfolio review

**Implementation Plan (timeline):** Collection: annually at end of spring semester beginning AY 2014/2015. Spreadsheet for data collection.

**Key/Responsible Personnel:** Data collected by Assessment Coordinator

**Findings for Construction CAD III [NCAD-230] - Student Portfolio**

**Summary of Findings:** 90% of students (n=10) scored 75% or better on their portfolio review.

**Results:** Acceptable Benchmark Achievement: Met

**Recommendations:**

**Reflections/Notes:**

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Generate renderings and animations from CAD and BIM projects

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

Details/Description: Final project grade
Acceptable Benchmark: 80% of students will score 75% or better on final project grade
Key/Responsible Personnel: Data collected by Assessment Coordinator

Findings for Presentation Graphics [NCAD-250] - Final Project

Summary of Findings: 83% of the students (n=6) scored 75% or better on the final project
Results: Acceptable Benchmark Achievement: Met
Recommendations:
Reflections/Notes:

Effectively prepare and present projects utilizing presentation graphics

Measure: Presentation Graphics [NCAD-250] - Final project presentation
Course level; Direct - Student Artifact

Details/Description: Final project presentation grade
Acceptable Benchmark: 80% of students will score 75% or better on final project presentation grade
Key/Responsible Personnel: Data collected by Assessment Coordinator

Findings for Presentation Graphics [NCAD-250] - Final project presentation

Summary of Findings: 83% of the students (n=6) scored 75% or better on the project presentation.
Results: Acceptable Benchmark Achievement: Met
Recommendations:
Reflections/Notes:

Demonstrate creative skills on a design project

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

Details/Description: Design project grade
Acceptable Benchmark: 80% of students will score 75% or better on design project grade
Key/Responsible Personnel: Data collected by Assessment Coordinator

Findings for Advanced Construction CAD [NCAD-240] - Design Project

Summary of Findings: 83% of the students (n=6) scored 75% or better on the design project
Results: Acceptable Benchmark Achievement: Met
Recommendations:
Reflections/Notes:
### Understand current issues affecting the construction industry

**Recommendations:**
Understand current issues affecting the construction industry

**Reflections/Notes:**

### Explain the purpose and role of building codes in the construction industry

**Measure:** Principles of Structural Systems [NCAD-275] and Presentation Graphics [NCAD-250] - Building Codes Exam  
Course level; Direct - Exam

**Details/Description:** Exam grade  
**Acceptable Benchmark:** 80% of students will score 75% or better on building codes exam  
**Implementation Plan (timeline):** Collection: annually at end of fall semester beginning AY 2014/2015. Spreadsheet for data collection.  
**Key/Responsible Personnel:** Data collected by Assessment Coordinator

<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Summary of Findings:</strong> Only 40% of the students (n=10) scored 75% or better on the exam covering building codes.</td>
</tr>
<tr>
<td><strong>Results:</strong> Acceptable Benchmark Achievement: Not Met</td>
</tr>
<tr>
<td><strong>Recommendations:</strong> More practice reading technical literature</td>
</tr>
<tr>
<td><strong>Reflections/Notes:</strong> Students found the language in the building codes to be challenging. They need more assistance with understanding the language and doing the calculations.</td>
</tr>
</tbody>
</table>

### Identify issues related to sustainability in the construction industry

**Measure:** MEP Systems [NCAD-285] - Sustainability Exam  
Course level; Direct - Exam

**Details/Description:** Exam grade  
**Acceptable Benchmark:** 80% of students will score 75% or better on sustainability exam  
**Implementation Plan (timeline):** Collection: annually at end of spring semester beginning AY 2014/2015. Spreadsheet for data collection.  
**Key/Responsible Personnel:** Data collected by Assessment Coordinator

<table>
<thead>
<tr>
<th>Findings for MEP Systems [NCAD-285] - Sustainability Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Summary of Findings:</strong> 100% of the students (n=10) scored 75% or better on the final exam on sustainability.</td>
</tr>
<tr>
<td><strong>Results:</strong> Acceptable Benchmark Achievement: Met</td>
</tr>
<tr>
<td><strong>Recommendations:</strong></td>
</tr>
<tr>
<td><strong>Reflections/Notes:</strong></td>
</tr>
</tbody>
</table>

### Develop positive skills required to be effective on the job
Engage productively in a collaborative team project

**Measure:** Advanced Construction CAD [NCAD-240] - Team project  
Course level; Indirect - Other

**Details/Description:** Self evaluation, peer review and teacher evaluation using rubric scale: 1-5  
**Acceptable Benchmark:** 80% of students will score 3 or more on the rubric scale 1-5  
**Implementation Plan (timeline):** Collection: annually at end of fall semester beginning AY 2015/2016. Spreadsheet for data collection.  
**Key/Responsible Personnel:** Data collected by Assessment Coordinator

**Findings** for Advanced Construction CAD [NCAD-240] - Team project

**Summary of Findings:** 83% of students (n=6) scored 3 or better on their team project.  
**Results:** Acceptable Benchmark Achievement: Met  
**Recommendations:**

Accurately and clearly present technical information to an audience of peers

**Measure:** Presentation Graphics [NCAD-250] - Final Project Presentation  
Course level; Direct - Other

**Details/Description:** Self evaluation, peer review and teacher evaluation using rubric scale: 1-5  
**Acceptable Benchmark:** 80% of students will score 3 or more on the rubric scale 1-5  
**Implementation Plan (timeline):** Collection: annually at end of fall semester beginning AY 2015/2016. Spreadsheet for data collection.  
**Key/Responsible Personnel:** Data collected by Assessment Coordinator

**Findings** for Presentation Graphics [NCAD-250] - Final Project Presentation

**Summary of Findings:** 83% of students (n=6) scored 3 or better on their final presentation.  
**Results:** Acceptable Benchmark Achievement: Met  
**Recommendations:**

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 (timeline):** Collection: annually at end of summer beginning AY 2014/2015. RIT Supervisor Online Co-op Evaluation System.  
**Key/Responsible Personnel:** Data collected by NTID Center on Employment (NCE)

**Findings** for Co-op Work Experience [NCAD-299] - RIT Supervisor Online Co-op Evaluation System

*No Findings Added*
### Gain entry level employment in the construction industry

**Measure:** NCE - Job Placement  
Program level; Indirect - Other

**Details/Description:** Job placement after graduation

**Acceptable Benchmark:** 90% of graduates who are seeking employment in the construction industry will be employed


**Key/Responsible Personnel:** Data collected by NTID Center on Employment (NCE)

**Findings for NCE - Job Placement**

*No Findings Added*

### Indicate satisfaction with program and courses

**Measure:** Student Satisfaction Survey - Upon Completion of Final Semester  
Program level; Indirect - Survey

**Details/Description:** Upon completion of final semester - Survey results

**Acceptable Benchmark:** 80% of students will rate all aspects of the program and courses as satisfactory or above

**Implementation Plan (timeline):** Collection: annually near the end of fall semester beginning AY 2015/2016  
Survey results summary

**Key/Responsible Personnel:** Data collected by Assessment Coordinator

**Findings for Student Satisfaction Survey - Upon Completion of Final Semester**

*No Findings Added*

### Overall Recommendations

*No text specified*

### Overall Reflection

*No text specified*