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<th>Program Goals</th>
<th>Student Learning Outcomes</th>
<th>Academic Program Profile</th>
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<tr>
<td>Develop the ability to produce accurate 2-D drawings and Building Information Modeling (BIM) projects.</td>
<td>Use CAD to produce 2D technical drawings</td>
<td>Critical Thinking</td>
<td>Construction CAD II NCAD-220</td>
<td>80% of students will score 75% or better on final practical grade</td>
<td>Collection: annually at end of fall semester beginning AY 2013/2014</td>
<td>Data collected by Assessment Coordinator</td>
<td>Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports</td>
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<td>Extract and modify orthographic technical drawings from a BIM model</td>
<td>Critical Thinking</td>
<td>Final portfolio review of construction documents</td>
<td>80% of students will score 75% or better on final portfolio review grade</td>
<td>Collection: annually at end of fall semester beginning AY 2014/2015</td>
<td>Data collected by Assessment Coordinator</td>
<td>Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports</td>
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<td></td>
<td>Generate reports on information contained in a BIM model</td>
<td>Critical Thinking</td>
<td>Construction CAD II NCAD-220</td>
<td>80% of students will score 3 or more on the rubric scale 1-5</td>
<td>Collection: annually at end of fall semester beginning AY 2014/2015</td>
<td>Data collected by Assessment Coordinator</td>
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<td>Create a BIM project based on preliminary information</td>
<td>Critical Thinking</td>
<td>Course embedded project</td>
<td>80% of students will score 75% or better on final project grade</td>
<td>Collection: annually at end of fall semester beginning AY 2015/2016</td>
<td>Data collected by Assessment Coordinator</td>
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<td>Use a BIM project as a basis to produce detailed sections and other details</td>
<td>Critical Thinking</td>
<td>Final portfolio review of construction documents</td>
<td>80% of students will score 75% or better on final portfolio review grade</td>
<td>Collection: annually at end of fall semester beginning AY 2015/2016</td>
<td>Data collected by Assessment Coordinator</td>
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<tr>
<td>Develop the skills to acquire, record and analyze information derived from field measurements, existing drawings and other technical documents</td>
<td>Create and interpret dimensions for technical drawings</td>
<td>Critical Thinking, Ethical Reasoning, Integrative Literacies, Global Interconnectedness, Creative/Innovative Thinking</td>
<td>Data Collection and Analysis NCAD-108</td>
<td>Final dimensioning practical</td>
<td>Practical grade</td>
<td>80% of students will score 75% or better on final dimensioning practical grade</td>
<td>Collection: annually at end of spring semester beginning AY 2013/2014</td>
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<td>Define appropriate technical vocabulary as used by the construction industry</td>
<td>Critical Thinking, Ethical Reasoning, Integrative Literacies, Global Interconnectedness, Creative/Innovative Thinking</td>
<td>Data Collection and Analysis NCAD-108</td>
<td>Final vocabulary exam</td>
<td>Exam grade</td>
<td>80% of students will score 75% or better on final vocabulary exam grade</td>
<td>Collection: annually at end of spring semester beginning AY 2013/2014</td>
<td>Spreadsheet for data collection</td>
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<tr>
<td>Field measure and input existing space conditions into CAD</td>
<td>Critical Thinking, Ethical Reasoning, Integrative Literacies, Global Interconnectedness, Creative/Innovative Thinking</td>
<td>Data Collection and Analysis NCAD-108</td>
<td>Course project</td>
<td>Project grade</td>
<td>80% of students will score 75% or better on course project grade.</td>
<td>Collection: annually at end of spring semester beginning AY 2013/2014</td>
<td>Spreadsheet for data collection</td>
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<tr>
<td>Research technical information and incorporate into drawings and documentation</td>
<td>Critical Thinking, Ethical Reasoning, Integrative Literacies, Global Interconnectedness, Creative/Innovative Thinking</td>
<td>Advanced Construction CAD NCAD-240</td>
<td>Design project</td>
<td>Rubric scale: 1-5</td>
<td>80% of students will score 3 or above on incorporating technical information into design project</td>
<td>Collection: annually at end of fall semester beginning AY 2015/2016</td>
<td>Spreadsheet for data collection</td>
</tr>
<tr>
<td>Understand the basic characteristics of construction materials and procedures</td>
<td>Identify various construction materials using correct terminology</td>
<td>Critical Thinking, Ethical Reasoning, Integrative Literacies, Global Interconnectedness, Creative/Innovative Thinking</td>
<td>Construction Materials and Methods II, NCAD-265</td>
<td>Terminology exam</td>
<td>Exam grade</td>
<td>80% of students will score 75% or better on terminology exam</td>
<td>Collection: annually at end of spring semester beginning AY 2014/2015</td>
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<tr>
<td>Identify characteristics of common construction materials</td>
<td>Critical Thinking, Ethical Reasoning, Integrative Literacies, Global Interconnectedness, Creative/Innovative Thinking</td>
<td>Construction Materials and Methods II, NCAD-265</td>
<td>Final Exam</td>
<td>Exam grade</td>
<td>80% of students will score 75% or better on course final exam</td>
<td>Collection: annually at end of spring semester beginning AY 2014/2015</td>
<td>Spreadsheet for data collection</td>
</tr>
</tbody>
</table>
| Develop the skills to create and present visualization materials | **Develop and maintain a portfolio of student projects in both hard copy and electronic form** | Critical Thinking  
Ethical Reasoning  
Integrative Literacies  
Global Interconnectedness  
Creative/Innovative Thinking | Construction CAD III, NCAD-230  
Student Portfolio  
Portfolio review grade | 80% of students will score 75% or better on portfolio review | Collection: annually at end of spring semester beginningAY 2014/2015  
Spreadsheet for data collection | Data collected by Assessment Coordinator | Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports |
| Generate renderings and animations from CAD and BIM projects | Critical Thinking  
Ethical Reasoning  
Integrative Literacies  
Global Interconnectedness  
Creative/Innovative Thinking | Presentation Graphics, NCAD-250  
Final project grade | 80% of students will score 75% or better on final project grade | Collection: annually at end of fall semester beginningAY 2015/2016  
Spreadsheet for data collection | Data collected by Assessment Coordinator | Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports |
| Effectively prepare and present projects utilizing presentation graphics | Critical Thinking  
Ethical Reasoning  
Integrative Literacies  
Global Interconnectedness  
Creative/Innovative Thinking | Presentation Graphics, NCAD-250  
Final project presentation grade | 80% of students will score 75% or better on final project presentation grade | Collection: annually at end of fall semester beginningAY 2015/2016  
Spreadsheet for data collection | Data collected by Assessment Coordinator | Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports |
| Demonstrate creative skills on a design project | Critical Thinking  
Ethical Reasoning  
Integrative Literacies  
Global Interconnectedness  
Creative/Innovative Thinking | Advanced Construction CAD, NCAD-240  
Design project  
Design project grade | 80% of students will score 75% or better on design project grade | Collection: annually at end of fall semester beginningAY 2015/2016  
Spreadsheet for data collection | Data collected by Assessment Coordinator | Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports |
| Understand current issues affecting the construction industry | Explain the purpose and role of building codes in the construction industry | Critical Thinking  
Ethical Reasoning  
Integrative Literacies  
Global Interconnectedness  
Creative/Innovative Thinking | Principles of Structural Systems, NCAD-275  
Presentation Graphics, NCAD-250  
Building codes exam  
Exam grade | 80% of students will score 75% or better on building codes exam | Collection: annually at end of fall semester beginningAY 2014/2015  
Spreadsheet for data collection | Data collected by Assessment Coordinator | Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports |
| Identify issues related to sustainability in the construction industry | Critical Thinking  
Ethical Reasoning  
Integrative Literacies  
Global Interconnectedness  
Creative/Innovative Thinking | MEP Systems, NCAD-285  
Sustainability exam  
Exam grade | 80% of students will score 75% or better on sustainability exam | Collection: annually at end of spring semester beginningAY 2014/2015  
Spreadsheet for data collection | Data collected by Assessment Coordinator | Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports |
| Develop positive skills required to be effective on the job | Engage productively in a collaborative team project | Critical Thinking | Ethical Reasoning | Integrative Literacies | Global Interconnectedness | Creative/Innovative Thinking | Advanced Construction CAD, NCAD-240 | Team project | Self evaluation, peer review and teacher evaluation using rubric scale: 1-5 | 80% of students will score 3 or more on the rubric scale 1-5 | Collection: annually at end of fall semester beginning AY 2015/2016 | Spreadsheet for data collection | Data collected by Assessment Coordinator | Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Accurately and clearly present technical information to an audience of peers | Critical Thinking | Ethical Reasoning | Integrative Literacies | Global Interconnectedness | Creative/Innovative Thinking | Presentation Graphics, NCAD-250 | Final project presentation | Self evaluation, peer review and teacher evaluation using rubric scale: 1-5 | 80% of students will score 3 or more on the rubric scale 1-5 | Collection: annually at end of fall semester beginning AY 2015/2016 | Spreadsheet for data collection | Data collected by Assessment Coordinator | Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports |
| Apply technical knowledge and skills on a co-op work experience | Critical Thinking | Ethical Reasoning | Integrative Literacies | Global Interconnectedness | Creative/Innovative Thinking | Co-op Work Experience, NCAD-299 | Performance on the job | RIT Supervisor Online Co-op Evaluation System | 80% of students will meet or exceed overall satisfactory score on co-op job | Collection: annually at end of summer beginning AY 2014/2015 | RIT Supervisor Online Co-op Evaluation System | Data collected by NTID Center on Employment (NCE) | Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports |
| Gain entry level employment in the construction industry | Critical Thinking | Ethical Reasoning | Integrative Literacies | Global Interconnectedness | Creative/Innovative Thinking | After graduation | Job placement | NCE | 90% of graduates who are seeking employment in the construction industry will be employed | Collection: annually during spring beginning AY 2016/2017 | Survey of graduates | Data collected by NTID Center on Employment (NCE) | Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports |
| Indicate satisfaction with program and courses | Critical Thinking | Ethical Reasoning | Integrative Literacies | Global Interconnectedness | Creative/Innovative Thinking | Upon completion of final semester | Student Satisfaction Survey | Survey results | 80% of students will rate all aspects of the program and courses as satisfactory or above | Collection: annually near the end of fall semester beginning AY 2015/2016 | Survey results summary | Data collected by Assessment Coordinator | Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports |