

**UNIVERSITY ASSESSMENT COMMITTEE**  
**Feedback to Academic Departments on Assessment Activities Reported in FY 2010 Annual Reports**  
**GRADUATE PROGRAMS**

**DEPARTMENT** M.S. in Geological Engineering **DATE** 03/28/12

**COMMITTEE MEMBER(S) CONDUCTING REVIEW** Roxanne Hurley & Paul Drechsel

**1. STUDENT LEARNING GOALS**

- |                                       |              |               |                          |
|---------------------------------------|--------------|---------------|--------------------------|
| • Were any goals referenced?          | YES <u>X</u> | NO <u>   </u> | QUALIFIED Y/N <u>   </u> |
| • If so, were goals well articulated? | YES <u>X</u> | NO <u>   </u> | QUALIFIED Y/N <u>   </u> |
| • Do goals address student learning?  | YES <u>X</u> | NO <u>   </u> | QUALIFIED Y/N <u>   </u> |

**Comments:** The Assessment Plan posted is dated 2004-2005. There are 3 Student Learning Goals with sub learning objectives listed under each goal. They are well articulated and address student learning.

**2. ASSESSMENT METHODS**

- |  |              |               |                          |
|--|--------------|---------------|--------------------------|
| Were any specific assessment methods referenced?   | YES <u>X</u> | NO <u>   </u> | QUALIFIED Y/N <u>   </u> |
| • If so, were specifically chosen assessment methods appropriately aligned with individual goals?        | YES <u>X</u> | NO <u>   </u> | QUALIFIED Y/N <u>   </u> |
| • Were both direct and indirect assessment methods used as components of a “multiple measures” approach? | YES <u>X</u> | NO <u>   </u> | QUALIFIED Y/N <u>   </u> |

**Comments:** Direct assessment methods are listed (course work, oral defense, thesis, placement rate, publications). Surveys (student, alumni & employer) are identified as indirect measures. All methods are tied to a specific objective.

**3. ASSESSMENT RESULTS**

- |  |                |             |                          |
|--|----------------|-------------|--------------------------|
| Were any assessment results reported?  | YES <u>   </u> | NO <u>X</u> | QUALIFIED Y/N <u>   </u> |
| • If so, were the results clear in terms of how they specifically affirm achievement of goals? | YES <u>   </u> | NO <u>X</u> | QUALIFIED Y/N <u>   </u> |
| • If so, were the results clear in terms of how they indicate need for improvement?            | YES <u>   </u> | NO <u>X</u> | QUALIFIED Y/N <u>   </u> |
| • Were the results tied to goals for student learning?   | YES <u>   </u> | NO <u>X</u> | QUALIFIED Y/N <u>   </u> |

**Comments:** There is no assessment data reported in the annual report for this program.

**4. CLOSING THE LOOP**

- |  |                |               |                          |
|--|----------------|---------------|--------------------------|
| Were any actions taken on the basis of assessment results reported?  | YES <u>   </u> | NO <u>X</u>   | QUALIFIED Y/N <u>   </u> |
| • If so, do curricular or other improvements/ changes arising from assessment results directly address goals for student learning? | YES <u>   </u> | NO <u>   </u> | QUALIFIED Y/N <u>   </u> |

**Comments:** The Assessment Plan identifies who is responsible and how the “closing the loop” process is to occur. Since there is no data reported we are unable to determine if any “closing the loop” activities occurred.

**SUMMARY***Strengths*

- ☒ A specific plan for assessment is in place.  
☒ Student learning goals are well-articulated.  
☒ Assessment methods are clearly described.  
☐ Assessment methods are appropriately selected.  
☐ Assessment methods are well-implemented.  
☐ Direct and indirect methods are implemented.  
☐ Results are reported.  
☐ Results are tied to closing the loop.  
 (Decision-making is tied to evidence.)

*Areas for Improvement*

- ☐ No specific plan for assessment is in place.  
☐ Student learning goals are not well-articulated.  
☐ Assessment methods are not clearly described.  
☐ Assessment methods are not appropriately selected.  
☒ Assessment methods are not well-implemented.  
☐ A single type of assessment methods predominates.  
☒ No results are reported.  
☒ Results are not clearly tied to closing the loop.  
 (Decision-making is not directly tied to evidence.)

**OVERALL SUMMARY AND RECOMMENDATIONS:**

**The graduate program has an assessment plan in place but it was last updated in 2004. There are clearly articulated Student Learning Goals and Objectives. We recommend that results of the Assessment Plan be posted in the annual report each year and the program more clearly articulates how decision-making is tied to the assessment results.**

**MATERIALS REVIEWED**

- ☒ Annual report  
☐ Appendices (cited in annual report)  
☐ Other (please describe)
- ☒ Assessment plan (as posted)  
☒ Previous assessment review

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Section 1: ☒ Y ☐ N    Section 2: ☒ Y ☐ N    Section 3: ☐ Y ☒ N    Section 4: ☐ Y ☒ N

**Coding Key:**

- Y = yes, this is done appropriately and well  
 N = no, this is not done at all, or it is not done in relationship to student learning  
 NA = no information available  
 ? = action or progress is apparent; however, evidence is lacking that this is completely and appropriately done

**UNIVERSITY ASSESSMENT COMMITTEE**  
**Feedback to Academic Departments on Assessment Activities Reported in FY 2010-11 Annual Reports**  
**UNDERGRADUATE PROGRAMS**

DEPARTMENT B.S. in Geological EngineeringDATE 03/28/12COMMITTEE MEMBER(S) CONDUCTING REVIEW Roxanne Hurley, Paul Drechsel**1. STUDENT LEARNING GOALS**

- |                                       |              |                |                           |
|---------------------------------------|--------------|----------------|---------------------------|
| • Were any goals referenced?          | YES <u>X</u> | NO <u>    </u> | QUALIFIED Y/N <u>    </u> |
| • If so, were goals well articulated? | YES <u>X</u> | NO <u>    </u> | QUALIFIED Y/N <u>    </u> |
| • Do goals address student learning?  | YES <u>X</u> | NO <u>    </u> | QUALIFIED Y/N <u>    </u> |

**Comments:** *UG program outcomes were revised in 2011. There are 11 well articulated outcomes which address student learning goals. The plan is posted on the departmental Assessment Plan website.*

In addition to the Departmental goals, please also consider UND's Institutional and Essential Studies goals for student learning (shown in alignment within parentheses). Use 'U' (undergraduate) to identify UND/Essential Studies goals which are similar to the referenced departmental goals.

- |             |   |  |
|-------------|---|--|
| <u>X</u>    | 1 | Communication – written or oral (“able to write and speak in various settings with a sense of purpose/audience”) |
| <u>X</u>    | 2 | Thinking and reasoning – critical thinking (or “be intellectually curious”; analyze, synthesize, evaluate)       |
| <u>X</u>    | 3 | Thinking and reasoning – creative thinking (or “be intellectually creative”; explore, discover, engage)          |
| <u>X</u>    | 4 | Thinking and reasoning – quantitative reasoning (“apply empirical data...analyze graphical information”)         |
| <u>X</u>    | 5 | Information literacy (“be able to access and evaluate...for effective, efficient, and ethical use”)              |
| <u>    </u> | 6 | Diversity (“demonstrate understanding of diversity and use that understanding...”)                               |
| <u>X</u>    | 7 | Lifelong learning (“commit themselves to lifelong learning”)   |
| <u>X</u>    | 8 | Service/citizenship (“share responsibility both for their communities and for the world”)                        |

**Comments regarding departmental goals and alignment of departmental goals with institutional and Essential Studies goals:** Seven of the ES student learning goals are aligned within the departmental outcomes. While there is no goal directly identifying understanding of diversity, students must “understand the impact of engineering solutions in a global context”.

**2. ASSESSMENT METHODS**

- |  |              |                |                           |
|--|--------------|----------------|---------------------------|
| Were any specific assessment methods referenced?   | YES <u>X</u> | NO <u>    </u> | QUALIFIED Y/N <u>    </u> |
| • If so, were specifically chosen assessment methods appropriately aligned with individual goals?        | YES <u>X</u> | NO <u>    </u> | QUALIFIED Y/N <u>    </u> |
| • Were both direct and indirect assessment methods used as components of a “multiple measures” approach? | YES <u>X</u> | NO <u>    </u> | QUALIFIED Y/N <u>    </u> |

**Comments:** *Each student learning outcome has the following clearly articulated, specific performance criteria, strategies, assessment method(s), source of assessment, time of collection. An assessment coordinator reviews the results is clearly articulated. Direct assessment methods such as standardized exams, course exams, course assignments (laboratory reports) and student portfolios are identified. Indirect methods are provided by surveys given to students, their design course instructor, their academic advisor, and their field course instructor. Students also participate in an exit interview with the department chair.*

### 3. ASSESSMENT RESULTS

Were any assessment results reported? YES X NO \_\_\_\_ QUALIFIED Y/N \_\_\_\_

- If so, were the results clear in terms of how they specifically affirm achievement of goals? YES X NO \_\_\_\_ QUALIFIED Y/N \_\_\_\_
- If so, were the results clear in terms of how they indicate need for improvement? YES X NO \_\_\_\_ QUALIFIED Y/N \_\_\_\_
- Were the results tied to goals for student learning? YES X NO \_\_\_\_ QUALIFIED Y/N \_\_\_\_

**Comments: Results are reported clearly for each specific learning outcome and provide direct indication of whether students are achieving the desired learning outcome(s). Results are clearly tied to goals for student learning.**

In addition to departmental goals, some assessment results may be applicable to institutional and Essential Studies goals. Use 'U' (undergraduate) to identify those results which are applicable to institutional/Essential Studies goal achievement. For indicated items, please describe findings in the appropriate section below. .

- X 1 Communication – written or oral (“able to write and speak in various settings with a sense of purpose/audience”)
- X 2 Thinking and reasoning – critical thinking (or “be intellectually curious”; analyze, synthesize, evaluate)
- X 3 Thinking and reasoning – creative thinking (or “be intellectually creative”; explore, discover, engage)
- X 4 Thinking and reasoning – quantitative reasoning (“apply empirical data...analyze graphical information”)
- X 5 Information literacy (“be able to access and evaluate...for effective, efficient, and ethical use”)
- \_\_\_\_ 6 Diversity (“demonstrate understanding of diversity and use that understanding...”)
- X 7 Lifelong learning (“commit themselves to lifelong learning”)
- X 8 Service/citizenship (“share responsibility both for their communities and for the world”)

**Comments regarding results and the application of results to departmental, institutional and Essential Studies goals: Data supports the achievement of student learning goals for the above identified ES requirements.**

### 4. CLOSING THE LOOP

Were any actions taken on the basis of assessment results reported? YES X NO \_\_\_\_ QUALIFIED Y/N \_\_\_\_

- If so, do curricular or other improvements/changes arising from assessment results directly address goals for student learning? YES X NO \_\_\_\_ QUALIFIED Y/N \_\_\_\_

**Comments: The ABET Coordinator evaluated the data and identified that all student learning outcomes were met. A recommendation of no action was made. It is reported that faculty are making revisions to courses in an effort to improve student learning even further.**

**SUMMARY***Strengths**Areas for Improvement*

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> A specific plan for assessment is in place.                                     | <input type="checkbox"/> No specific plan for assessment is in place.   |
| <input checked="" type="checkbox"/> Student learning goals are well-articulated.                                    | <input type="checkbox"/> Student learning goals are not well-articulated.   |
| <input checked="" type="checkbox"/> Assessment methods are clearly described.                                       | <input type="checkbox"/> Assessment methods are not clearly described.  |
| <input checked="" type="checkbox"/> Assessment methods are appropriately selected.                                  | <input type="checkbox"/> Assessment methods are not appropriately selected.   |
| <input checked="" type="checkbox"/> Assessment methods are well-implemented.  | <input type="checkbox"/> Assessment methods are not well-implemented.   |
| <input checked="" type="checkbox"/> Direct and indirect methods are implemented.                                    | <input type="checkbox"/> A single type of assessment methods predominates.  |
| <input checked="" type="checkbox"/> Results are reported.   | <input type="checkbox"/> No results are reported.   |
| <input checked="" type="checkbox"/> Results are tied to closing the loop.<br>(Decision-making is tied to evidence.) | <input type="checkbox"/> Results are not clearly tied to closing the loop.<br>(Decision-making is not directly tied to evidence.) |

**OVERALL SUMMARY AND RECOMMENDATIONS:**

The B.S. Geological Engineering Program has done an excellent job of developing their assessment plan and completing a very detailed report on the data results and closing the loop activities. Well done!

**MATERIALS REVIEWED**

- |  |   |
|--|---|
| <input type="checkbox"/> Annual report   | <input checked="" type="checkbox"/> Assessment plan (as posted) |
| <input type="checkbox"/> Appendices (cited in annual report)   | <input checked="" type="checkbox"/> Previous assessment review  |
| <input checked="" type="checkbox"/> Other (please describe) Interim Report B.S. Geological Engineering Program to ABET, Inc. June 2011 |   |

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Section 1: Y    Section 2: Y    Section 3: Y    Section 4: Y

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