

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

DEPARTMENT Forensic Science DATE March, 2011

COMMITTEE MEMBER(S) CONDUCTING REVIEW Barbara Combs, Eric Johnson, Raina Urton

1. STUDENT LEARNING GOALS

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

Comments:

Three goals are listed in the assessment plan and annual report. The assessment plan indicates that revisions would be forthcoming in 2008 but it is not clear that any changes have been posted. The first two appear to be student learning goals. The third is geared towards career development and participation by students appears to be voluntary.

- 1. demonstrate familiarity with a broad range of forensic science fields, techniques, and concepts*
- 2. demonstrate scientific thought and techniques, and perform scientific analysis pertinent to the forensic sciences*
- 3. participate in activities which will further his or her development as a scientist and forensic scientist*

As noted in the 2007 assessment report these goals are quite broad. Adding objectives for each may help to clarify specifically what students are expected to know and be able to do. For example, what does demonstrate "familiarity" entail? What are the techniques and concepts to be learned? What are the particular features of scientific analysis pertinent to forensic sciences which students should demonstrate?

In addition to the Departmental goals, please also consider UND's Institutional and Essential Studies goals for student learning (shown in alignment within parentheses).

- ? 1 Communication – written or oral ("able to write and speak in various settings with a sense of purpose/audience")
- ? 2 Thinking and reasoning – critical thinking (or "be intellectually curious"; analyze, synthesize, evaluate)
- 3 Thinking and reasoning – creative thinking (or "be intellectually creative"; explore, discover, engage)
- 4 Thinking and reasoning – quantitative reasoning ("apply empirical data...analyze graphical information")
- 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...")
- 7 Lifelong learning ("commit themselves to lifelong learning")
- 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:

The goals are tied to competencies expected in the field and there is no direct relationship to institutional and essential studies goals. However, Forensic Science's goal 2 may be related to Goal 2: Critical Thinking. It also possible that Forensic Science's goal 3 may address Goal 1: Communication.

2. ASSESSMENT METHODS

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|---|--------------|----------------|---------------------------|
| 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 | YES <u>X</u> | NO <u> </u> | QUALIFIED Y/N <u> </u> |

measures” approach?

Comments:

The assessment plan provided descriptions of assessments tied to each goal. Both direct and indirect measures were noted including: course grades, “topical” pop quizzes, laboratory reports that are graded using a rubric, internship surveys and supervisor evaluations of the internship, although the internship is elective and so reported results will likely not represent perceptions of all students.

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:

The annual report provided assessment results for goal 2: demonstrate scientific thought and techniques, and perform scientific analysis pertinent to the forensic sciences. ANTH 346: Analysis of Forensic Evidence was the primary course for assessment of this goal (although ANTH 497: Forensic Science Internship is mentioned in the Assessment Plan).

As noted in the assessment plan and annual report, a course grade of C indicates that students have met the goal. The ANTH 346 course average for spring, 2009 was 81. We assume that this would be equivalent to a grade of B, but it would help to report findings as letter grades thus paralleling the level of acceptability stated in the assessment plan. We have a concern about the use of course grades as an assessment measure. In general they are not good measures because they are too broad and cannot pinpoint how or whether a particular goal is met.

Laboratory report scores were also provided. An average of 14 indicates that students have met the goal. The average for the ANTH 346 spring 2009 laboratory reports was 14.8.

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

- ___?_ 1 Communication – written or oral (“able to write and speak in various settings with a sense of purpose/audience”)
- ___?_ 2 Thinking and reasoning – critical thinking (or “be intellectually curious”; analyze, synthesize, evaluate)
- ___ 3 Thinking and reasoning – creative thinking (or “be intellectually creative”; explore, discover, engage)
- ___ 4 Thinking and reasoning – quantitative reasoning (“apply empirical data...analyze graphical information”)
- ___ 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...”)
- ___ 7 Lifelong learning (“commit themselves to lifelong learning”)
- ___ 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:

Discussion of results in the annual report indicated “most students demonstrate the ability to draw a conclusion based upon the observations they have made, but there is some weakness in this area.” The drawing of conclusions may be related to Goal 2 above. Also, information provided in the annual report that related to a need for students to develop writing skill specific to the writing of crime lab reports seems to connect with Goal 1 above.

4. CLOSING THE LOOP

Were any actions taken on the basis of assessment results reported?	YES_X_	NO___	QUALIFIED Y/N ___
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- If so, do curricular or other improvements/ changes arising from assessment results directly address goals for student learning? YES_____ NO_____ QUALIFIED Y/N _X_

Comments:

The annual report indicated that results from a previous annual review resulted in the reduction of more creative writing tasks in favor of more scientific writing expected of students learning the field of forensic science. The annual report also stated that a new goal aimed at student learning was developed and may replace goal 2: Students will be able to describe key concepts and techniques specific to the function of a crime laboratory with special emphasis on the techniques of a trace evident laboratory. Assessments will be tied to ANTH 346 and possibly senior exit surveys

SUMMARY

Strengths

Areas for Improvement

☒ 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.)

☐ 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:

Forensic Science has an assessment plan that ensures ongoing review of student learning. Assessment goals appear to be targeted and reviewed annually and changes in the program are made in light of that review. As noted earlier in the report, these goals are broad and unpacking goals 1 and 2 by adding objectives for each may help to clarify expectations for students.

Although direct and indirect measures are mentioned, it appears that ANTH 497, the primary course for the student internship survey, is not taken often enough by enough students to provide reliable information. The annual report made reference to the development of a senior exit survey and we would encourage the program to develop this to round out their assessment methods. We also encourage the replacement of course grades with measures such as projects, exams, papers, that can be closely aligned with specific goals and objectives.

It is not clear whether the Assessment Plan on the web has been recently updated and we encourage the program to upload a new plan as soon as possible.

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: _?_ Section 2: _?_ Section 3: _Y_ Section 4: _Y_

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