

The Outcomes Assessment Task Force met at 8:00 A. M. October 9, 2013, to hear reports from the following departments: Information Technology, Science, Social Sciences, Math, Communication and Humanities, Natural Resources, Business, Allied Health, Nursing, and Farm/Ranch Business Management. Education and Human Development did not report because the faculty member is new to the program. Computerized Office Management did not report because so few students were enrolled in the program. Environmental Technology, Paramedic Technology, Recreation Management and Accounting also did not report.

## **NATURAL RESOURCES**

### **FORS 255 – Urban Trees and Shrubs, PLSC 177 – Floral Design I, and PLSC 178 – Floral Design II**

#### **Method of Assessment:**

FORS 255 - Urban Trees and Shrubs assess workplace readiness with a pretest/posttest based on knowledge of 50 common North Dakota trees. PLSC 177 - Floral Design I and PLSC 178 – Floral Design II assessed mastery level of technical skills with an industry checklist in.

#### **Results:**

- Learning took place in Urban Trees and Shrubs, but only 50% of the students met the department expected outcome of 15/20 on the test.
- Students in Floral Design I and II averaged 85% or higher on most projects.

#### **Follow-up:**

- One extra class period will be spent on the 50 most common trees in North Dakota.
- Department will help students master basic technical skills in floral design earlier to allow more time for advanced skills.

#### **OATF Recommendations:**

- Consider revising the benchmark in FORS 255 to better fit the posttest.

## **SOCIAL SCIENCES**

### **HIST 101 – Western Civilization I, HIST 102 – Western Civilization II, HIST 103 – United States History to 1877, HIST 104 – United States History Since 1877, HIST 200 – North Dakota History, and SOC 110 – Introduction to Sociology**

#### **Method of Assessment:**

Social Sciences (HIST 101, 102, 103, 104, 200 and SOC 110) decided to use the General Education Goal of demonstrating, through historical examples, what happens when differing social structures collide. They integrated this concept into various essay exam questions in each of the courses listed at the beginning of this paragraph. The essay questions were scored using a rubric, and students from Fall 2012 and Spring 2013 semesters were the control group. Assessments included on-campus, dual credit, on-line and IVN VCSU students.

Assessments were based on students' understanding of what happens in world history and current events when differing social structures collide. The rubric was based on a 5 point Likert scale with the scores ranging from 0 (no documented understanding of collision of social structures) to 5 (mastery understanding of collision of social structures). An example of the essay questions was "The contact between new world and old is considered to be one of the most historically important and deadly exchanges to ever take place. Why?"

#### **Results:**

- In assessing 235 student rubric grades, the overall mean was 3.36 with a standard deviation of 1.69.

#### **Follow-up:**

- The social science department will repeat the assessment during the 2013-14 school year and compare the results to the previous year. If the mean rubric score shows a significant difference ( $p = 0.05$ ), the department will integrate the goal into the classes tested as part of faculty expectations.

## **INFORMATION TECHNOLOGY, WEBMASTER, WEB DESIGN**

### **CSCI 101 - Introduction to Computers**

#### **Method of Assessment:**

The first assessment involved the ability of students enrolled in CSCI 101 – Introduction to Computers to complete a final project using MS Office applications. The department expected 70% of students would score a 70% or higher on the final project (Power Point). The project was scored using a rubric.

**Results:**

- The expected outcomes were clearly defined and assessed by a well-developed rubric.
- Ninety-two percent of students enrolled in CSCI 101 scored 70% or higher based on the average of three or four graders. Some of these graders were students. The benchmark was met.

**CIS 180 – Creating Web Pages I****Method of Assessment:**

The second assessment involved the ability of students enrolled in CIS 180 – Creating Web Pages I to apply concepts covered in the course towards the completion of a final, “introductory-level” project. The department expected 70% of students would score a 70% or higher on the final project (webpage). The project was scored using a rubric.

**Results:**

- The expected outcomes were clearly defined and assessed by a well-developed rubric.
- Instructors involved students from DCB and the three distant sites.
- Thirty-eight percent of students enrolled in CIS 180 scored 70% or higher. Forty-six percent of students enrolled in the class did not submit a final project. (DCB had 4 students, 2 students did not submit projects. There were 9 distance students, 4 did not submit projects)
- Of the students who handed in the final project, five of the seven (71.4%) met the objective of C or above.

**Follow-up:**

- The final project will be weighted more to encourage completion.

**OATF Recommendations:**

- The IT department should involve online instructors who teach CSCI 101 and CIS 180 in the assessment process.
- It is recommended that students do not grade other students’ projects. Either one or two instructors should perform the grading.
- In both courses, further analysis could have been conducted on the results to determine which “point(s)” on the rubric students struggled with the most. These results could have been depicted in a graph or table. Once identified, instructors could have spent additional time during future class periods emphasizing the “points” in which students scored lowest. (Closing the loop)

## **ALLIED HEALTH, NURSING, PARAMEDIC (EMT) TECHNOLOGY**

### **AH 222 – Medical Transcription I**

#### **Method of Assessment:**

Allied Health measured student's knowledge of medical transcription in AH 222 - Medical Transcription I, with a pre/post-test. In each course, the students were expected to transcribe the same report at the beginning and at the end of the course. Assessment was completed utilizing the quality standards rubric from the Association of Health Care Documentation Integrity. The department expected outcome is a 96% average.

#### **Results:**

- The 8 out of 10 students that completed the post-test averaged over 97% on the post-test.
- Students exceeded the departmental goal by more than 1%.

### **NURSING 126 - Clinical Practice III (PN) and NURS 237 - Clinical Applications II (ADN)**

#### **Method of Assessment:**

Nursing used the ATI Comprehensive Predictor for both ADN and PN programs to measure students' probability of success on the Nursing NCLEX exams.

#### **Results:**

- Nursing 126 – Clinical Practice III: 16 of 17 nursing students passed the ATI PN Predictor with a score of 69% or greater on the first attempt, which predicted that they had a 92% probability of passing the NCLEX exam the first time. Of the 16 students who passed the PN predictor, 12 passed the NCLEX the first time. One student was required to remediate in order to retake the exam. The student passed on the second attempt. Five students have not taken the NCLEX exam.
- Nursing 237 – Clinical Applications II: 11 of 14 students passed the ATI RN Predictor with a score of 69% or greater on the first attempt, which predicted that they had a 92% probability of passing the NCLEX exam the first time. Of the 11 students who passed the ATI RN Predictor, 10 students passed the NCLEX exam the first time, and one student has not taken the NCLEX. Of the three students who failed the predictor, one student did not pass the nursing program; one student failed the NCLEX exam; and one student took the Virtual ATI course and passed the NCLEX the first time.

#### **Follow-up:**

- Greater emphasis will be placed on areas of the test that indicate student difficulty.

## **SCIENCE, ENVIRONMENTAL TECHNOLOGY, WILDLIFE, RECREATION MANAGEMENT**

### **BIOL 111 - Concepts of Biology and BIOL 150 - General Biology I**

#### **Method of Assessment:**

Students took a pre-test on various scientific aspects of biology that citizens may encounter in everyday life. Over the course of the class, a concerted effort was made to incorporate everyday life examples of biology. Students were then re-tested near the end of the semester. The goal was for 70% of students who took both the pre-test and the post-test to score higher on the post-test.

#### **Results:**

- In BIOL 111, 88% of the students scored higher on the post-test (n=18).
- In BIOL 150, 86% of the students scored higher on the post-test (n=22).
- Students exceeded the goal of 70%.

### **BIOL 220 - Anatomy and Physiology I and BIOL 221 - Anatomy and Physiology II**

#### **Method of Assessment:**

Students were asked the following bonus question during the final exam at the end of Spring Semester 2013: "Thoroughly discuss and give an example of the five ways the information you've learned in this course can be applied to everyday life." The goal was for 80% of the students to list and discuss at least four ways in which information they've learned in Anatomy and Physiology I and II can be applied to everyday life.

#### **Results:**

- Approximately 62% of students were able to list at least four ways in which information they've learned in Anatomy and Physiology I and II can be applied to everyday life. (Note: The class average was 4.4 and the median was 4).

#### **Follow-up:**

- Since the benchmark of this objective was not met, a concerted effort will be placed on emphasizing course content to meet this objective during 2013-2014. In addition, this question will be administered during the last day of class and not during the end of the final exam.

## **CHEM 115 – Introductory Chemistry, CHEM 121 – General Chemistry I, and CHEM 122 – General Chemistry II**

### **Method of Assessment:**

Pre-test/Post-test. Students surveyed on the first day of class and asked to describe the number of ways that scientific information applies to their everyday life. On the final exam students were asked to describe the number of ways that scientific information applies to their everyday life.

### **Results:**

- The survey on the first day yielded the following:  
Number of students with no responses: 11  
Number of students with 1-2 responses: 15  
Number of students with 3-4 responses: 14  
Number of students with 5-6 responses: 7  
Number of students with 7-8 responses: 0  
Number of students with 9-10 responses: 0
- The final exam day same question yielded the following:  
Number of students not able to describe any application: 0  
Number of students with less than 1-2: 0  
Number of students with 3-4: 0  
Number of students with 5-6: 2  
Number of students with 7-8: 4  
Number of students with 9-10: 27  
Number of students with more than 10: 14

## **BIOL 170 - Zoology**

### **Method of Assessment:**

Utilizing a pre-test/post-test method, students demonstrated an awareness of the role of science in everyday life. Students were pre-tested at the beginning of the semester and will be post-tested at the end. The goal was for 80% of students to demonstrate an increased awareness of the role of science in everyday life.

### **Results:**

- Only 18% of students could name 10 ways that science is used in everyday life on the pre-test.

### **Follow-up:**

- Results of the post-test will be shared with the OATF Committee.

## **BUSINESS: MARKETING/SMALL BUSINESS MANAGEMENT, ACCOUNTING, ADMINISTRATIVE ASSISTANT**

Both the Office Management and Business Communications courses assessed the understanding of cross-cultural differences and the awareness of, sensitiveness to, and understanding of differences and diverse populations.

### **BOTE 209 - Office Management**

#### **Method of Assessment:**

Short answer test question "In arranging an international meeting, for which aspects of the meeting might the office professional be responsible?" Answers needed to include the following areas:

1. Accommodations for the international guests from airport to and from hotel and other destinations;
2. Interpreters;
3. Information and location of nearest consulate's office;
4. Appropriate gifts when necessary;
5. Distribution of information about customs, appropriate do's and don'ts, to those meeting with the international guests.

The question was worth ten points overall, with each area addressed above worth two points. Minimum 8/10 points was expected.

#### **Results:**

- Both students answered the question correctly 10/10.

#### **OATF Recommendations:**

- The instructor may consider using a rubric.

### **BOTE 210 - Business Communications**

#### **Method of Assessment:**

Five test questions were asked in both the on-campus and online sections.

#### **Results:**

- Students scored very well on the five test questions that pertained specifically to diversity. The average rubric score on these five questions was 91.66666%.
  - Nine students scored 5/5, 2 students scored 4/5, 1 student scored 2/5
- The course will continue to include added information and focus in the future on the areas of intercultural and gender communication. It is obvious that this indeed did contribute to the higher scores.

## **COMMUNICATIONS, ART, HUMANITIES, FOREIGN LANGUAGES**

### **ENGL 110 – College Composition I, ENGL 120 – College Composition II and ASC 087 – College Writing Prep**

#### **Method of Assessment:**

The department objective measured writing ability of students in the areas of drafting, revising and editing by applying rules and conventions for standard, edited English (spelling, usage, and mechanics). A rubric was used in all three courses. A pre-test/post-test was also used in ENGL 110 to mainly measure usage.

#### **Results:**

- Rubric data for ASC 087 showed that the average scores for students in the area of content organization and style were satisfactory. The aggregate rubric data for ENG 110 and ENG 120 indicated that students in both classes were creating satisfactory thesis statements, organizing effectively, and writing clearly. This data mirrors data from previous years.
- Post test results in ENGL 110 exceeded the department expectation of a 20% increase.
- The department expectation for standard, edited English (spelling, usage, and mechanics) was not met in any of the courses.

#### **Follow-up:**

- These outcomes resulted in a plan to place greater emphasis on invention and arrangement and less emphasis on finished product, except for three major essays in ASC 087.
- Students will continue to complete worksheets on subtopics in grammar and spend time in ASC 088 and ENG 110 reviewing the worksheets. The 2013 pretest/posttest results seem to indicate students were grasping concept even though the writing results did not meet department expectations.

## **FARM BUSINESS MANAGEMENT**

### **AGRI 242 – Advanced Farm Management Education**

#### **Method of Assessment:**

Farm Business Management measured the ability to keep a complete and accurate set of records, including inventories, balance sheets and farm production records. The department used the students' portfolios to determine the type of record keeping systems that each student used and how well he/she did in completing the records. The department then used the portfolios to determine the number that completed a whole farm analysis, an enterprise analysis, and a cash flow plan to help evaluate the effectiveness of the record keeping system.



**Results:**

- Eighty-eight (72.1%) farms used computer record keeping programs compared to 66.4% in the previous year, 28 (23.0%) used the North Dakota Farm Management Record Book compared to 30.3% last year and six (4.9%) used professional accounting services compared to 3.3% in the previous year. These statistics show that the department is moving toward using more computer accounting systems and away from the hard copy records.
- One-hundred-sixteen (95.1%) farms completed a whole farm analysis, which compares to the previous years' results of 90.2%. One-hundred-two (83.6%) farms completed an enterprise analysis, which compares to the previous years' results of 81.1%.
- Seventy-two (59.0%) farms completed cash flows. The results indicated a substantial drop from the 73.8% completion rate from the previous year and were also well below the program goal of have 75% cash flow completion rates.

**Follow-up:**

- As a result of this year's assessment, the department will again place an increased effort into teaching students the need for accurate cash flow projections even if lending institutions may not require them.

**MATHEMATICS****MATH 103 – College Algebra and MATH 102 – Intermediate Algebra****Method of Assessment:**

The math department compared the completion rate of students placed in MATH 103 or MATH 102 to determine if the math placement test cut off scores are appropriate.

**Results:**

- In Math 103, 95% of the students that tested into college algebra completed the course (withdrawals omitted), and 85% of the students that tested into College Algebra completed the course (withdrawals included).
- In Math 102, 48% of students that tested into intermediate algebra completed the course (withdrawals omitted), and 41% of the students that tested into Intermediate Algebra completed the course (withdrawals included).
- In Math 103, testing results exceeded expectations, and in Math 102, they were 22% below the expected outcome.

**Follow-up:**

- Results of department and/or course improvements of the previous year: Various methods of solving a quadratic equation were examined, and in the fall, students meet the expectation as a whole, but in the spring, students did not meet the expectation, so more time was spent in the spring sections of college algebra. Students did show improvement especially in completing the square, but the 70% threshold was not met.
- The math department will now compare completion rates for ASC 91, 92, and 93 to see if there is a correlation.

**OVERALL RECOMMENDATIONS:**

Based on the reports, the taskforce commends the disciplines on the progress made in the assessment process and recommends the following:

- The assessment day format should continue.
- OATF and General Education assessment should continue to coordinate activities.