2017-2018 Arizona Western College Assessment Report

Prepared by:
Elaine Groggett, M.Ed.
Assessment, Program Review, Curriculum and Articulation Office

Arizona Western College
2020 S. Avenue 8 East
P.O. Box 929
Yuma, AZ 85366-0929

(928) 317-6043
(928) 344-7651

www.azwestern.edu
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Introduction and Background

The Assessment Report is published annually by the Director of Assessment, Program Review, Curriculum and Articulation under the guidance of the Vice President of Learning Services at Arizona Western College. The Director of Assessment, Program Review, Curriculum and Articulation also serves as a member on the Curriculum Committee and an ex-officio member on the General Education Curriculum Committee.

Faculty and staff have long sought to advance the academic achievement of students and the services provided at Arizona Western College (AWC) through a variety of programs, services, and activities. AWC’s student learning outcomes are defined by the faculty and the instruments used to measure student success are selected and/or developed by the faculty. Institutional departments define and analyze the results of their goals to improve services for students, faculty, staff, and the community. AWC promotes continual assessment to ensure the institution is providing quality services and preparing students to be successful in critical inquiry, communication, quantitative analysis, digital literacy, scientific literacy, and civic discourse.

The Assessment, Program Review, Curriculum and Articulation Office serves to help district-wide assessment efforts by sharing results among members of AWC and Yuma and La Paz County and encouraging new ways to improve teaching and learning and improving institutional services.

Organizational Structure for Assessment

As a standing committee, the General Education Curriculum Committee (GECC) is charged with making decisions and recommendations related to all aspects of general education outcomes assessment at Arizona Western College. The faculty driven committee is chaired by a faculty member. The Director of Assessment, Program Review, Curriculum and Articulation is an ex-officio member of the GECC. The committee holds regular monthly meetings and schedules additional ad hoc meetings as needed.

The success of course and program level assessment, as well as institutional assessment activities and initiatives, is dependent upon the participation and collaboration of faculty and administration.
2017-2018 Accomplishments

- Provided 12 assessment workshops/Tk20 training sessions (group and individual).
- Nine Excellence in Assessment Awards earned by administrators and staff and 13 by faculty.
- Five 2016-2017 program reviews were completed; four academic programs and one administrative department.
- GECC completed an assessment of randomly selected quantitative analysis student artifacts.

Excellence in Assessment

The Assessment, Program Review, Curriculum and Articulation Office established an Excellence in Assessment Award as a way to publicly acknowledge the efforts of the faculty, administrators, and staff that have successfully completed a well-developed assessment plan to improve student learning and/or services. The 2017-2018 Excellence in Assessment recipients are:

**Faculty**

Monica Ketchum, Professor of History  
Theresa Dehne, Professor of Biology  
Robert Killin, Professor of Chemistry  
Scott Donnelly, Professor of Chemistry  
Sarah Berner, Professor of Agricultural Science/Manager of Land Lab  
Eric Lee, Professor of English/Communications Division Chair  
Paul Robert Bruce, Professor of Computer Information Systems  
Kristine Duke, Professor of Accounting  
Michelle Sims, Professor of Economics  
Anthony Gier, Professor of Economics  
Patrick Cunningham, Professor of Economics  
Nicholas Byle, Professor of Philosophy  
David Burris, Professor of Philosophy

**Administrators and Staff**

Michelle Thomas, Director of TRIO Programs  
Angelica Gebhardt, Project Specialist, KEYS  
Laura Shepherd, Academic Success Advisor, KEYS  
Eva Aviles, Program Manager, KEYS  
Aybuke Keehn, Coordinator of International Students Program  
Vanessa Natseway, Student Success Center Coordinator  
Cynthia Hummer, Administrative Assistant  
Sotero Alvarado, Professor of Mathematics/Mathematics Lab Coordinator  
Clayton Nichols, Professor of English / Writing Center Coordinator

Excellence in Assessment- Program Review

The Excellence in Assessment Award was originally established to acknowledge the efforts of the faculty, administrators, and staff who successfully completed a well-developed assessment plan. In the fall of 2017, one administrative department completed and submitted an exemplary program review that was deserving of the Excellence in Assessment award: AccessABILITY
General Education Assessment

Each year the GECC assess critical inquiry, writing, and one additional general education focus area. This year the GECC selected quantitative analysis. Quantitative Analysis is the ability to use mathematical concepts and operations in order to solve real-world problems. A quantitatively literate individual should be able to perform arithmetic, algebraic and logical operations that involve abstract problems, and demonstrate problem solving skills in a variety of contexts.

Students demonstrate quantitative analysis skills through identifying and extracting relevant data from given mathematical or contextual situations, selecting known models or developing appropriate models that organize the data into: tables or spreadsheets, and obtain correct mathematical results and state those results with appropriate qualifiers.

Tools for Assessment and Measurement

Quantitative Analysis-
Quantitative Analysis was assessed for the first time institutionally in 2017-2018. The GECC received 129 student artifacts of which 67 were assessed. The assessment process itself revealed several issues that must be addressed before a valid assessment of quantitative analysis can be conducted on an institutional basis. To address the issues the GECC has agreed that:

- successful assessment requires all components (assignment/rubric/student artifact/faculty comments)
- there should be a uniform submission requirement (pdf, redacted, etc.)
- faculty should identify when the assignment appears in the course (scaffolding)

The table below reflects how the artifacts received were scored:

<table>
<thead>
<tr>
<th></th>
<th>Exceeds</th>
<th>Meets</th>
<th>Needs Improvement</th>
<th>Unable to Determine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Literacy assignment</td>
<td>8%</td>
<td>28%</td>
<td>60%</td>
<td>2%</td>
</tr>
<tr>
<td>components and expectations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Critical Inquiry-
The GECC assessed student’s critical inquiry by asking Student Showcase Scholarship applicants to write a 2-page essay or create an 8-10 minute video, that would thoroughly and thoughtfully explain how the project they were presenting for the Spring 2018 Student Showcase exemplified their understanding and expression of one of the five AWC General Education Focus Areas: Digital Literacy, Communication, Quantitative Analysis, Scientific Literacy, and Civic Discourse.

The GECC assessed 34 student applications and after interviews, qualified 7 students for scholarships. The rubric utilized to score the essays for an interview is listed in the appendix.

Course, Academic Program, and Department Assessments

Assessment plans contain information on: Outcomes/Goals, Measures, Results, Analysis, Recommendations, and Actions and is entered in Tk20, AWC’s assessment system.

- Course plans completed: 46
- Academic program plans completed: 3 (certificates and programs)
- Institutional departments plans completed: 9

Several assessment plans have been included in the appendices to provide evidence of AWC’s ongoing efforts to improve teaching and learning.
2017-2018 Assessment Summary

AWC faculty, administrators, and staff continue to attend assessment workshops and training sessions, develop and departmental goals and learning outcomes.

Each year many of the assessment plans and program reviews have improved in quality. Many of the individuals and departments who have submitted assessment plans and program reviews are demonstrating greater levels of understanding of the assessment process, the value of assessment, and the benefits of on-going assessment. Sixteen of the submitted assessment plans were well written. The remaining assessment plans were lacking one or more of the following: benchmarks, standards, detailed findings, recommendations, and/or planned actions to improve teaching and learning or services but with support and encouragement, the goal is to improve the quality for all assessment plans in the future.

One of the requests that came out of an Assessment Coalition meeting is being brought forth. The students of the Assessment Coalition group asked for an instrument for students to provide feedback to the faculty on an on-going basis. The Assessment Coalition, in conjunction with students from the Student Government Association (SGA) and members of Campus Life, designed a poster to be displayed in all classrooms that provides a link to a web form where students can provide feedback or ask questions of their faculty. The poster theme is ‘How’s My Teaching?’

The goals for 2018-2019 are:

- Support and sustain a culture of assessment.
- Share information about assessment practices of curricular, co-curricular, and institutional services and develop a shared language and demonstrated understanding of assessment on campus.
- Solicit feedback about faculty, staff, administrator, and student needs related to assessment.
- Provide opportunities for professional development on departmental goals and learning outcomes assessment.
- Encourage the use of assessment plan data to improve student learning and services.
- Faculty will develop appropriate program level student learning outcomes for all associate degrees and certificates and submit them into the assessment application.
- Analyze student usage of the ‘How’s My Teaching?’ web form and contact at least 20% of the students who submitted forms with suggestions and or questions to their faculty to collect their feedback on any outcomes related to their submission.
- Increase the percentage of general education student artifacts assessed at the institutional level by 15%.
- Assist faculty with collecting and assessing 20% of writing intensive student artifacts.
<table>
<thead>
<tr>
<th></th>
<th>Excellent (25-23 points)</th>
<th>Good (22-20 points)</th>
<th>Needs Improvement (19-below points)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content &amp; Analysis</strong></td>
<td>• clearly describes project</td>
<td>• identifies project</td>
<td>• project unclear</td>
</tr>
<tr>
<td><strong>Points________</strong></td>
<td>• identifies GE Focus Area represented &amp; details how</td>
<td>• identifies GE Focus Area represented</td>
<td>• GE Focus Area relevance unclear</td>
</tr>
<tr>
<td><strong>Comments:</strong></td>
<td>• explores additional relevant Focus Areas</td>
<td>• mentions other Focus Areas</td>
<td>• other Focus areas not mentioned</td>
</tr>
<tr>
<td></td>
<td>• describes what has been learned</td>
<td>• discusses learning</td>
<td>• learning process unclear</td>
</tr>
<tr>
<td></td>
<td>• expresses remaining curiosity</td>
<td>• remains curious</td>
<td>• remaining curiosity unclear</td>
</tr>
<tr>
<td><strong>Organization &amp; Flow</strong></td>
<td>• utilizes transitions between and among ideas</td>
<td>• might utilize some transitions between and among ideas</td>
<td>• would benefit from transitions between and among ideas</td>
</tr>
<tr>
<td><strong>Points________</strong></td>
<td>• ideas are presented in a logical order</td>
<td>• ideas may not be presented in a logical order</td>
<td>• ideas not logically presented</td>
</tr>
<tr>
<td><strong>Comments:</strong></td>
<td>• ideas are well-developed</td>
<td>• ideas could be more fully developed</td>
<td>• ideas undeveloped</td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td>• uses appropriate language and interesting word choice</td>
<td>• uses mostly appropriate language and some interesting word choice</td>
<td>• appropriate and interesting language needed</td>
</tr>
<tr>
<td><strong>Points________</strong></td>
<td>• grabs the reader’s attention and maintains it throughout</td>
<td>• grabs the reader’s attention but does not necessarily maintain it</td>
<td>• does not effectively grab the reader’s attention</td>
</tr>
<tr>
<td><strong>Comments:</strong></td>
<td>• illustrates ideas</td>
<td>• illustrates some ideas</td>
<td>• tells rather than illustrating ideas</td>
</tr>
<tr>
<td><strong>Conventions</strong></td>
<td>• meets all requisite guidelines</td>
<td>• Mostly meets requisite guidelines</td>
<td>• Does not meet requisite guidelines</td>
</tr>
<tr>
<td><strong>Points________</strong></td>
<td>• grammar does not impede clarity</td>
<td>• Grammar might impede clarity</td>
<td>• grammar likely impedes clarity</td>
</tr>
<tr>
<td><strong>Comments:</strong></td>
<td>• presentation format (in writing or visual) is appropriate and appealing</td>
<td>• Presentation format generally appropriate and appealing</td>
<td>• presentation format may not be appropriate and/or appealing</td>
</tr>
</tbody>
</table>

**Appendix**

Student Name: Project:

Reviewer:

Total Points: /100

Recommend for Interview: Yes  No
Assessment Period(s): AY 2017-2018
Organization Type(s): College, Department, Division, Program, University
Organization(s): General Education
Display blank entries: No

AWC

AY 2017-2018

General Education

Written communication: Students provide writing that shows proficiency in standard English.
No Data

Critical Thinking: Students will take charge of their own thinking.
No Data
Quantitative Analysis: Students will use mathematical or contextual situations.

Measure 1: The General Education Committee identified Quantitative Analysis as the GE Focus Area for assessment for academic year 2017/18. To facilitate assessment, the GECC
Devised and distributed to all faculty a QA rubric (attached). Requested 10% random sample of QA students
through IR. Students identified = 635. 35 withdrew 14 in mis-identified courses. N = 586. Requested faculty of those
students submit:
assignment & rubric. Student artifact. Brief evaluation of assignment effectiveness. The goal was for 70% of
student artifacts collected and assessed to score a 2 or greater on the QA Rubric used for assessment (on a scale of
1-3).

Measure 1 Type: Direct
Measure 1 Results: Students identified = 635. 35 withdrew 14 in mis-identified courses. N = 586. Once the GECC received these materials
(N = 129), the GECC compiled, redacted, and scanned as needed materials and posted in a BB shell dedicated to GE
Assessment (67/129 met the request for submission). Materials were split among 3 assessment teams of 3 cross-
disciplinary faculty each from the GECC. GECC teams met Jan 11th, 2018 to norm the rubric. Team members
then completed individual assessments of their materials, then met for consensus, which was submitted by March
5th. The GECC then met as a committee to analyze results overall and make recommendations for future GE
assessments.

Evidence Attachments: GE QA Rubric [APP F17].pdf
This Goal was: Not Met
Findings: There were 2 overarching goals for this assessment: 1. to collect the requisite artifacts for the 10% random sample
2. for 70% of those artifacts to score ≥ on the QA Rubric 1. Our 10% sample size was 586; of those 586 students
identified we received 129 artifacts, or 22% of 10%. 2. Of the artifacts collected that met the established
submission guidelines, 67/129 or 11% of 10%, only 36% scored a 2 or greater on the QA rubric, while 60% scored
below 2.

Target Level Achievement: Not Met
*If less than Met, program should plan further action to improve performance.

Overall Summary of Findings: (Optional entry: fill out after entering the results for the last outcome/goal being assessed if you
would like to provide an overall summary of your findings for the course/program/department being assessed.)
During our norming session, prior to any evaluation of artifacts, there was rich discussion about what we would be
looking for as evidence of student learning, particularly after a flawed rubric experience during last year’s
assessment. Further, the redacting & scanning of materials was time-consuming so before we even got the actual
assessment it was clear that we need a more uniform collection format. So low submission rates coupled with
inconsistent submission format created a challenging assessment before we even evaluated the artifacts.

What strengths were displayed through the assessments of your measures?
Students scoring in the Meets range tended to successfully complete the assignment (2.0), and in some cases
completed the assignment with “nice work in representation and drawing of data” (2.5). Few students earned an
Exceeds (3) but those who did showed “excellent graphic display of information” and could serve as “potential
future models for other QA assignments.”

What weaknesses were displayed through the assessments of your measures?
The GECC reviewers agreed that in many cases the Needs Improvement score (1-1.5) was based on “weak
presentation,” representation or mis-representation of data. Reviewers agreed that additional specificity of
directions, as well as examples/models for students, might contribute to a better outcome.

1. The GECC will again suggest that Divisions revisit both outcomes & identified courses for all Focus Areas,
providing faculty the opportunity to make sure their course designations are appropriate.

2. Successful assessment requires all components be included in submission (assignment/rubric/student
artifact/faculty comments); faculty should identify when the assignment appears in the course (scaffolding); and
there should be a uniform submission requirement (pdf, redacted, etc.)

3. Assessment across the GE & WI spectrum could be made much simpler & more engaging with a capstone course
that requires a portfolio of materials from students, which are then assessed by cross-disciplinary faculty.

Revise Measurement Approach
Planned Changes
Change Methods of Data Collection
Planned Changes
Describe Changes
The GECC--and the institution as a whole--needs to determine the most effective collection and assessment protocol
to elicit a true picture of how well students are performing in the GE courses. The Pathways team is currently
considering a capstone course that would require students to develop a webportfolio that includes artifacts
representing the achievement of learning outcomes, including GE outcomes. However, this is not going to happen
in the next academic year so we need to be creative in the meantime to simplify the collection/submission process
both for faculty and for the GE reviewers.

Person/ Group responsible for action
Ellen Riek, Chair GECC
Target Date for implementation of the action
09/17/2018
Priority
High
Describe any additional resources needed
(Leave blank if no additional resources are needed.)
It would be awesome to have some PT clerical assistance to collect, redact, and collate the assessment materials.
And maybe some pizza when we have our consensus meeting:-)

Digital Literacy: Students will have a working knowledge of computer basics.
No Data

Digital Literacy (1) Determine the extent of information needed
No Data

Digital Literacy (2) Comprehend the basic components of a networked computer system
No Data

Digital Literacy (3) Access the needed information effectively and efficiently
No Data

Digital Literacy (4) Evaluate information and its sources critically
No Data
Digital Literacy (5) Incorporate selected information into one's knowledge base
No Data

Digital Literacy (6) Use information effectively to accomplish a specific purpose
No Data

Digital Literacy (7) Understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally
No Data

Digital Literacy (8) Create content in a digital environment
No Data

Communication (1) Write effectively and intelligently for a range of purposes and audiences in the English language (e.g., informing, persuading, advancing an argument, expressing, creating, etc.)
No Data

Communication (2) Read a wide range of texts across the curriculum, demonstrating comprehension through written and oral summary and analysis
No Data

Communication (3) Utilize proper citations, evaluate critically, and use effectively relevant information for problem-solving and presentation of ideas, issues, and arguments
No Data

Communication (4) Speak effectively to a purpose before an audience
No Data

Communication (5) Demonstrate skill in using electronic media generally appropriate to contemporary academic and professional workplaces
No Data

Communication (6) Demonstrate skill in using electronic media generally appropriate to contemporary academic and professional workplaces
No Data

Communication (7) Produce scholarly or creative works that effectively employ the communication conventions and means of the major field
No Data

Communication (8) Provide writing that presents a clear, specific thesis and awareness of audience
No Data

Communication (9) Fully develops examples to support thesis in logical, coherent manner demonstrates original thinking, depth of analysis, and comprehension of material used and that shows high proficiency in standard English grammar, spelling, and punctuation
No Data

Writing Intensive (1) Demonstrate proficiency in written discourse through the composition of at least 3000 words, or about 12 pages, of writing embedded into the requirements of the GE course through multiple written assignments
No Data

Writing Intensive (2) Writing demonstrates critical inquiry which includes the gathering, interpretation, and evaluation of evidence
No Data

Writing Intensive (3) Engage in a recursive writing process, developing flexible strategies for generating ideas, revising, editing, and proofreading, using instructor and peer feedback on written discourse to guide improvement through revision. At least 33% of the students grade in the course is based on revised written discourse
No Data

Writing Intensive (4) Develop written discourse in the form appropriate to discipline, which includes overall organization, analysis, grammar, mechanics, punctuation, and style
No Data

Writing Intensive (5) Develop strategies for composing in class and out of class compositions
No Data

Writing Intensive (6) Demonstrate through written discourse a sequence of increasing complexity/skill in knowledge of content as well as discipline specific discourse form
No Data

Quantitative Analysis (1) Identify and extract relevant data from given mathematical or contextual situations
No Data

Quantitative Analysis (2) Select known models or develop appropriate models that organize the data into: tables or spreadsheets (with or without technology); graphical representations (with or without technology); symbolic/equation format
No Data

Quantitative Analysis (3) Obtain correct mathematical results and state those results with appropriate qualifiers and use the results to: determine whether they are realistic in terms of original data/problem; determine whether the mathematical model/representation of data is appropriate; describe trends in a table, graph, or formula and make predications based on these trends; draw qualitative conclusions in written form; apply them to real world problems
No Data
Scientific Literacy (1) Distinguish between a scientific hypothesis and scientific theory
No Data

Scientific Literacy (2) Describe the scientific method as a process
No Data

Scientific Literacy (3) Utilize data to communicate and apply an understanding of scientific logic and/or quantitative reasoning
No Data

Scientific Literacy (4) Analyze an article in popular literature that pertains to science and interpret the findings in terms of public policy, personal experience, or daily life
No Data

Civic Discourse (1) Describe historical, cultural, and political issues relevant in contemporary local, national, and global communities
No Data

Civic Discourse (2) Analyze how such issues affect various local, national, and global regions, communities, and individuals
No Data

Civic Discourse (3) Identify and explicate successful models of civic discourse at the local, national, and global levels
No Data

Civic Discourse (4) Develop strategies beyond the classroom to address local, national, and global issues
No Data

Global Awareness (1) Include contemporary subject matter
No Data

Global Awareness (5) Study of a scientific discipline that includes ecological and environmental interrelationships.
No Data

Cultural Awareness (1) Offer views of humanity from a multitude of perspectives.
No Data

Cultural Awareness (2) Engender an awareness of the universal aspects of humanity
No Data

Cultural Awareness (3) Explore causes of prejudice and discrimination.
No Data

Cultural Awareness (4) Analyze traditional and evolving views of women, race, and ethnicity.
No Data

Cultural Awareness (5) Foster a cooperative atmosphere in which inclusive cultural relations may be improved.
No Data

Cultural Awareness (6) Include study of the social, economic, political, and/or psychological dimension of relations between and among ethnic, racial, and gender groups.
No Data

Historical Awareness (1) Have history as a major focus
No Data

Historical Awareness (2) Examine past human events in a sequential manner.
No Data

Historical Awareness (3) Use broad historical views, showing the interconnectedness of events/ideas/creations/themes/theories.
No Data

Historical Awareness (4) Analyze sources of information that interpret human developments, ideas and institutions in the sequence or sequences of past events (example: a course that covers not only what happened in the past, but examines the historical influences that explain why this past occurred as it did or why present human developments have occurred).
No Data

Global Awareness - (2) Study that is concerned with an examination of culture-specific elements of a region, country or culture group. (The area studied must be non-U.S. and contributes to understanding contemporary society)
No Data

Global Awareness (3) Cross-cultural study with an emphasis on one or more foreign areas, including courses on such subjects as comparative religions, politics and international relationships.
No Data

Global Awareness (4) Study of non-U.S. centered cultural interrelationships of global scope, such as the global interdependence produced by problems of world ecology, multinational corporations, migration, and the threat of nuclear war.
No Data
**Planning 001: Assessment Plan Data for Organizations**

**Assessment Period(s):** AY 2017-2018

**Organization Type(s):** College, Department, Division, Program, University

**Organization(s):** Nursing Assistant CERT

**Display blank entries:** No

**AWC**

**AY 2017-2018**

**Nursing Assistant CERT**

**Student course evaluations will achieve an average of 3.5 on a 5 point scale for each component.**

**Measure 1:**
- Compiled responses from returned evaluations. Documents available in the Nursing Office.

**Measure 1 Type:** Direct

**Measure 1 Results:**
- Sp ’17: Range of averages were 4.335 to 4.875. No evaluated item was below 3.5. Aggregate data with student comments is available on the NUR-AH drive. Evaluation return rate: 83%
- Su ’17: Range of averages was 4.240 to 4.940. No evaluated item was below 3.5. Aggregate data with student comments is available on the NUR-AH drive. Evaluation return rate: 85%
- Fall ’17: Range of averages was 4.227 to 4.830. No evaluated item was below 3.5. Aggregate data with student comments is available on the NUR-AH drive. Evaluation return rate: 94%
- Sp ’16: Range of averages was 4.83 to 5.00. No evaluated item was below 3.5. Aggregate data with student comments is available on the NUR-AH drive. Evaluation return rate: 98%

**Evidence Attachments:**
- Copy of NA Course Evaluation averages 1-31-18 (5).xlsx

**This Outcome was:** Met

**Findings**
- Outcome met. All evaluated areas achieved a 3.5 or greater on a 5 point scale.

**Target Level Achievement**
- Met

*If less than Met, program should plan further action to improve performance.*

**What strengths were displayed through the assessments of your measures?**
- Students are generally satisfied with the instruction and feel prepared for the state exam.

**What weaknesses were displayed through the assessments of your measures?**
- None revealed in the evaluation process.

**Additional Comments:**
- For Fall’17, anecdotal comments were very positive and reflected a great deal of respect for the instructors.

1. No recommendations at this time. Continue to monitor student satisfaction.

**Other**
- No planned changes

**85% of each graduating cohort will pass the Manual Skills Test on the first attempt.**

**Measure 1:**
- Review results data provided by D&S.

**Measure 1 Type:** Direct

**Measure 1 Results:**
- Sp ’17: Pass rate 87.80% (36/41) Su ’17: Pass rate 92.30% (12/13) Fall’17: Pass rate 89.79% (44/49) Sp ’18: Pass rate 95.74% (45/47) (4 graduates yet to test)

**This Outcome was:** Met

**Findings**
- Results indicate current curriculum meets the students’ needs and provides a high opportunity for success.

**Target Level Achievement**
- Met

*If less than Met, program should plan further action to improve performance.*

**What strengths were displayed through the assessments of your measures?**
- Recent consistency in the provision of instruction and a renewed focus on student success has improved the success rate.

**What weaknesses were displayed through the assessments of your measures?**
- None

1. Ensure that all instructors follow the state requirements for class and skills teaching, minimizing variation that can contribute to lack of student success.

**Other**
- No changes required.

**Describe Changes**
- The program is strictly prescribed by state and federal regulation and is not open to modification.

**Implement Additional Training**
- Planned Changes

**Describe Changes**
- Ensure that all incoming Nursing Assistant faculty are trained to the mandated minimum requirements and provided with assistance as needed to ensure students are provided with an opportunity to be successful on the state test.

**Person/ Group responsible for action**
- Nursing Assistant Coordinator

**Priority**
- Low
90% of each graduating cohort will pass the State required Written Exam on the first attempt.

Measure 1: Review testing results provided by D&S.
Measure 1 Type: Direct
Measure 1 Results: Sp ’17: Pass rate 90.24% (37/41) Su ’17: Pass rate 100% (13/13) Fall’17: Pass rate 95.91% (47/49) Sp ’18: Pass rate 97.87% (46/47) 4 graduates yet to test.

This Outcome was: Met
Findings First time pass rate met or exceeded the expected level of achievement.
Target Level Achievement Met
*If less than Met, program should plan further action to improve performance.
Further Action Unnecessary

75% of each cohort will complete the program within the semester of enrollment.

Measure 1: Compile data from End of Semester Reports for each course.
Measure 1 Type: Direct
Measure 1 Results: Sp ’16: Completion rate 88.13% (52/59) Su ’16: Completion rate 78.13% (25/32). Fall ’16: Completion rate 75% (42/56). Sp ’17: Completion rate 75.43% (43/57) Fall ’17: Completion rate 96.22% (51/53). Sp ’18: Completion rate 96.07% (49/51).

This Outcome was: Met
Findings Fall’17: New faculty on-boarded. Review of course requirements and discussions with local D&S tester resulted in modifications to testing that better reflected standards and removed levels of difficulty not expected of Nursing Assistants. Sp ’18: Completion rate was 96.07% (49/51).
Target Level Achievement Met
*If less than Met, program should plan further action to improve performance.
Further Action Unnecessary

What strengths were displayed through the assessments of your measures?
Mandated program requirements are being met.

What weaknesses were displayed through the assessments of your measures?
Previous instruction integrated a level of difficulty that was deemed unnecessary and revised to provide students with an increased opportunity to be successful. Course requirements were not compromised in this revision. Barriers to success were removed.

I. As the program is tightly controlled by outside agencies, there is no room for modifying what is taught. To maintain current success, adherence to the program requirements by all faculty are imperative and oversight by the Director of Nursing needs to be at a level to ensure that all changes made are not arbitrary in nature.

All program complaints and grievances are recorded, including documentation of process and evidence of resolution.

Measure 1: Maintain a list of all complaints and grievances in the NA Coordinator's electronic file for review and data.
Measure 1 Type: Direct
Measure 1 Results: Fall’17: No grievances or complaints filed against the program. Spring ’18: No grievances or complaints filed against the program.

Target Level Achievement Met
I. Maintain current level of achievement.
Assessment Period(s): AY 2017-2018
Organization Type(s): College, Department, Division, Program, University
Organization(s): Nursing AAS
Display blank entries: No

AY 2017-2018
Nursing AAS

Seventy five percent of students will graduate within 3 years of enrollment.

Measure 1: Graduating cohort data that includes date of original entry into the program and date of graduation.
Measure 1 Type: Direct
Measure 1 Results: 100%.
This Outcome was: Not Met
Findings: Reasons for outcome results vary. Students withdraw for personal reasons. Several fail to request re-admission after failure of a semester. Infrequently, students use the LPN exit for work opportunity and return after the 3 year limit to complete the RN program.

Target Level Achievement: Further Action Unnecessary

Overall Summary of Findings (Optional entry: fill out after entering the results for the last outcome/goal being assessed if you would like to provide an overall summary of your findings for the course/program/department being assessed.)
Variations in data a very subjective and most often not within the control of the program.

What strengths were displayed through the assessments of your measures?
The overall attrition rate is still within norms, where 50% of students who enroll in nursing programs do not graduate with their original cohort.

What weaknesses were displayed through the assessments of your measures?
Students enter the program with unrealistic ideas of what the nursing profession is. Pre-nursing advisement may need to ensure that students fully understand what the expectations of them will be in the work force and provide more specifics of the duties of the nurse.

1. Provide more realistic view of nursing to pre-advisement attendees.

Grades will have first-time pass on the National Council Licensure Examination (NCLEX) with a rate of 80% or higher

Measure 1: Data derived from the Nation Council of State Boards of Nursing (NCSBN) reports on NCLEX results, published quarterly.
Measure 1 Type: Direct
Measure 1 Results: For calendar year 2017, first time pass rate was 85.71%. Fall 2017 cohort: 100%
Evidence Attachments: AZ - ARIZONA WESTERN COLLEGE - ADN (US96409900) (3).pdf
This Outcome was: Met
Findings: Results reported by the National Council for State Boards of Nursing (NCSBN). For calendar year 2017, the first time pass rate was 85.71%.

Target Level Achievement: Maintain current level of achievement.

Overall Summary of Findings (Optional entry: fill out after entering the results for the last outcome/goal being assessed if you would like to provide an overall summary of your findings for the course/program/department being assessed.)
Outcome met. Continue to monitor.

Other: No changes required.
Graduate employment rate will be at or above the local employment rate.

**Measure 1:** Employment rate based on confirmation of graduates, 6-9 months post graduation, that they are employed as an RN. Response rate for the phone survey was 76%.

**Measure 1 Type:** Direct

**Measure 1 Results:** For the period 1 July 2016 to 30 June 2017, the local employment rate for Yuma County reported by BLS was 79%. Employment rate for AWC nursing graduates was 94.7% of respondents.

**This Outcome was:** Met

**Findings**
For the period 1 July 2016 to 30 June 2017, the local employment rate for Yuma County reported by BLS was 79%. Employment rate for AWC nursing graduates was 94.7% of respondents. Data collection for AY 2017-2018: Polling of graduates is done 6 months post completion. Data will be updated at that time.

**Target Level Achievement** Met

*If less than Met, program should plan further action to improve performance.

**Further Action Unnecessary**

**What strengths were displayed through the assessments of your measures?**
Graduates are readily able to find employment as an RN.

1. No recommendations. Outcome is determined solely by the job market. Expectation is that the projected shortage of RN’s nationally and within Arizona will continue to provide opportunities for program graduates.

**Other**
No action required.

Graduating students will demonstrate Patient Centered Care by providing holistic care that recognizes an individual’s preferences, values, and needs and respects the patient or designee as a full partner in providing compassionate, coordinated, age and culturally appropriate, safe and effective care.

**Measure 1:** The annual average composite score on the HESI RN Exit will be XXX or higher for Patient Centered Care component.

**Measure 1 Type:** Direct

**Measure 1 Results:** 95% of graduating students will have received no less than Satisfactory for Patient Centered Care on the clinical evaluation tool for each enrolled semester.

**Measure 2 Type:** Direct

The graduating student will demonstrate team work and collaboration by functioning effectively within nursing and interdisciplinary teams, fostering open communication, mutual respect, shared decision making, team learning, and development.

**Measure 1:** The annual average composite score on the HESI RN Exit will be XXX or higher for Teamwork and Collaboration component.

**Measure 1 Type:** Direct

**Measure 2:** 95% of graduating students will have received no less than Satisfactory on the clinical evaluation tool for each enrolled semester for Teamwork and Collaboration.

The graduating student will demonstrate understanding of Evidence-based Practice by identifying, evaluating, and using the best current evidence coupled with clinical expertise and consideration of patients’ preferences, experience and values to make practice decisions.

**Measure 1:** The annual average composite score on the HESI RN Exit will be XXX or higher for Patient Centered Care component.

**Measure 1 Type:** Direct

**Measure 2:** 95% of graduating students will have received no less than Satisfactory on the clinical evaluation tool for each enrolled semester for Evidence-based Practice.

**Measure 2 Type:** Direct

The graduating student will demonstrate the concepts of Quality Improvement by using data to monitor the outcomes of care processes, and uses improvement methods to design and test changes to continuously improve the quality and safety of health care systems.

**Measure 1:** The annual average composite score on the HESI RN Exit will be XXX or higher for Quality Improvement component.

**Measure 1 Type:** Direct

**Measure 1 Results:** 95% of graduating students will have received no less than Satisfactory on the clinical evaluation tool for each enrolled semester for Quality Improvement.

**Measure 2 Type:** Direct

Graduating students will demonstrate understanding of the principles of Safety by minimizing risk of harm to patients and providers through both system effectiveness and individual performance.

**Measure 1:** The annual average composite score on the HESI RN Exit will be XXX or higher for Patient Centered Care component.

**Measure 1 Type:** Direct

**Measure 2:** 95% of graduating students will have received no less than Satisfactory on the clinical evaluation tool for each enrolled semester for Safety.

**Measure 2 Type:** Direct

The graduating student will demonstrate understanding of Informatics and Technology by using information technology to communicate, manage knowledge, mitigate error, and support decision making.

**Measure 1:** The annual average composite score on the HESI RN Exit will be XXX or higher for Patient Centered Care component.

**Measure 1 Type:** Direct

**Measure 2:** 95% of graduating students will have received no less than Satisfactory on the clinical evaluation tool for each enrolled semester for Informatics and Technology.

**Measure 2 Type:** Direct
The graduating student will demonstrate the principles of Professionalism by practicing accountability during delivery of standard-based nursing care that is consistent with moral, altruistic, legal, ethical, regulatory, and humanistic principles.

Measure 1: The annual average composite score on the HESI RN Exit will be XXX or higher for Patient Centered Care component.
Measure 1 Type: Direct
Measure 1 Results: 95% of graduating students will have received no less than Satisfactory on the clinical evaluation tool for each enrolled semester for Professionalism.
Measure 2 Type: Direct

The graduating student will demonstrate understanding of the principles of effective communication by interacting effectively with families, and colleagues, fostering mutual respect and shared decision making, to enhance patient satisfaction and health outcomes.

Measure 1: The annual average composite score on the HESI RN Exit will be XXX or higher for Patient Centered Care component.
Measure 1 Type: Direct
Measure 2: 95% of graduating students will have received no less than Satisfactory on the clinical evaluation tool for each enrolled semester for Communication.
Measure 2 Type: Direct

The graduating student will demonstrate effective leadership skills by positively influencing the behavior of individuals or groups of individuals within their environment in a way that will facilitate the establishment and acquisition/achievement of shared goals.

Measure 1: The annual average composite score on the HESI RN Exit will be XXX or higher for Patient Centered Care component.
Measure 1 Type: Direct
Measure 2: 95% of graduating students will have received no less than Satisfactory on the clinical evaluation tool for each enrolled semester for Leadership.
Measure 2 Type: Direct

The graduating student will demonstrate an awareness of, and responsiveness to, the larger context of the health care system, and will demonstrate the ability to effectively call on microsystems recourse to provide care that is optimal quality.

Measure 1: The annual average composite score on the HESI RN Exit will be XXX or higher for Patient Centered Care component.
Measure 1 Type: Direct
Measure 2: 95% of graduating students will have received no less than Satisfactory on the clinical evaluation tool for each enrolled semester for System-based Practice.
Measure 2 Type: Direct
Assessment Period(s): AY 2017-2018
Organization Type(s): College, Department, Division, Program, University
Organization(s): SOSC: Philosophy AA
Display blank entries: No

AWC

AY 2017-2018
SOSC: Philosophy AA

Graduates will develop basic critical thinking skills and grasp of the elementary principles of logic and argumentation.
No Data

Graduates will be able to recognize the distinctive contributions made by major philosophers and philosophical traditions down through history.
No Data

Graduates will be able to articulate the contents of their thinking and reasoning through written prose, with appropriate attention to and concern for the conventions and principles of composition and argumentative discourse
No Data
Students will be able to identify the basic parts of arguments (i.e., premises and conclusions) as well as to distinguish an argument from a non-argument (e.g., an assertion, explanation, disagreement etc.)

**Measure 1:**

PHI faculty will administer a short 20 question quiz in all PHI 101, PHI 105, and PHI 103 sections towards the end of both the fall and spring semesters. Since a student completing an AA in philosophy must successfully complete all three of these courses, students who successfully complete these courses should have a competent grasp of the following basic components of logic and critical thinking. This quiz will require the students to do the following: 1. Distinguish between arguments and non-arguments and identify parts of arguments (6 of the 20 questions address this outcome) The average score will be 70% or higher (14/20 correct) on the quiz.

**Measure 1 Type:** Direct

**Measure 1 Results:**

- **Measure 1 Artifact:** Outcome 1
- **Outcome:** Articulate
- **Outcome 1 Questions:** 1-71.6%

**Evidence Attachments:** Logic Measure 1 Assessment Quiz.docx

**Findings**

Findings for Outcome 1: Questions 1 through 6 met the benchmark for this outcome was the average score be 70% or greater. The average score was 71.6%. This benchmark was met in measure one. For measure two, the benchmark was that the average score be 1.5. The average score was 1.61. This benchmark was met.

**Target Level Achievement**

- **Further Action Unnecessary**

**What strengths were displayed through the assessments of your measures?**

Outcome 1Strengths: This was the strongest of the outcomes. The average benchmark was met in both measures. Of the three courses assessed this academic year, students scored highest in this outcome. For measure two in particular, students were often adept and identifying the conclusion and justifying that identification. Additionally, many students were able to appeal to the categories of inferential and factual claims to identify arguments and non-arguments, which is one of the subtler points in basic logic concepts.

1. Be sure that adjunct faculty are effectively communicated with in order to better ensure collection of artifacts.
2. Dividing this outcome into two outcomes, one devoted to distinguishing arguments from non-arguments and vice versa. These two skills into two separate outcomes may give cleaner data about where and why students and instruction are being effective or not.

3. Of the three outcomes assessed this academic year, students scored highest in this outcome. For measure two in particular, students were often adept and identifying the conclusion and justifying that identification. Additionally, many students were able to appeal to the categories of inferential and factual claims to identify arguments and non-arguments, which is one of the subtler points in basic logic concepts.

4. Evidence Attachments:

   - Logic Measure 1 Assessment Quiz.docx
   - Logic Measure 2 Article.docx
   - Logic Measure 2 Assessment Rubric.docx

**Upload any supporting documents to further elaborate on the recommendations listed above.**

- **Restructure Outcome Statement:** Planned Changes
- **Revise Measurement Approach:** Planned Changes
- **Describe Changes:**
  - I will discuss with David Burris his views on dividing this outcome into two outcomes. If we come to a consensus on that, then I will start the process of restructuring this outcome.

- **Make Personnel Related Changes:** Planned Changes
- **Describe Changes:**
  - One problem with all of the outcomes as they related to measure one, concerned communication with adjunct faculty. During every start up week division meeting, we talk with the adjunct faculty about various departmental issues. Communicating about the importance of assessment and particularly the collection of artifacts should be an explicit item on the agenda for each meeting. That change can be implemented at the beginning of Fall 2018. This, of course, applies to all three outcomes, and even to the collection of artifacts for other assessment purposes, such as WID and GE assessments.

- **Person/Group responsible for action:** Nik Byle (and David Burris)
- **Target Date for implementation of the action:** 08/31/2018
- **Priority:** Medium

- **Findings**

Findings for Outcome 1: Questions 1 through 6 met the benchmark for this outcome was the average score be 70% or greater. The average score was 71.6%. This benchmark was met in measure one. For measure two, the benchmark was that the average score be 1.5. The average score was 1.61. This benchmark was met.

**Target Level Achievement**

- **Further Action Unnecessary**

**What weaknesses were displayed through the assessments of your measures?**

Outcome 1 Weaknesses: It may be useful in the future to divide this outcome into two separate outcomes, one for distinguishing arguments from non-arguments and one for identifying parts of arguments. These skills are closely related, but it was common for students in measure two to be effectively identify parts of arguments while not being adept at distinguishing arguments from non-arguments and vice versa. Dividing these two skills into two separate outcomes may give cleaner data about where and why students and instruction are being effective or not.

1. Be sure that adjunct faculty are effectively communicated with in order to better ensure collection of artifacts.
2. Dividing this outcome into two outcomes, one devoted to distinguishing arguments from non-arguments and another aimed at identifying parts of arguments may make the assessment more precise. Other than that there are no recommendations for outcome one at this time since the benchmark was met; however, by addressing concerns in the two other associated outcomes, there may be some collateral improvements here as well.

**Evidence Attachments**

- Logic Measure 1 Assessment Quiz.docx
- Logic Measure 2 Article.docx
- Logic Measure 2 Assessment Rubric.docx

**Upload any supporting documents to further elaborate on the recommendations listed above.**

- **Restructure Outcome Statement:** Planned Changes
- **Revise Measurement Approach:** Planned Changes
- **Describe Changes:**
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- **Person/Group responsible for action:** Nik Byle (and David Burris)
- **Target Date for implementation of the action:** 08/31/2018
- **Priority:** Medium
Measure 1: Revise Measurement Approach above.

Upload any supporting documents to further assess of your measures?

Evidence Attachments:

Logic Measure 1 Assessment Quiz.docx
Logic Measure 2 Article.docx
Logic Measure 2 Assessment Rubric.docx

Outcome 2 Questions: 7-16.2%

Measure 2: PHI faculty teaching PHI 103 will assign a written assignment in which the students will be tasked with presenting and evaluating the argumentative elements of a case study of a real-world argumentative position. Since PHI 103 is devoted to the subject, students successfully completing this course should leave with a more proficient grasp of the principles of critical thinking, argumentation, and logic such that they can identify and evaluate the relevant elements or principles in real-world cases. A random selection of artifacts will be collect from both Fall and Spring semesters. In this assignment, it should be evident that the student is able to:

Recognize the differences between inductive and deductive argument forms

The average score in this category will be 1.5 or higher (see rubric).

Measure 2 Type: Direct

Measure 2 Results:

Direct

Evidence Attachments:

Logic Measure 1 Assessment Quiz.docx
Logic Measure 2 Article.docx
Logic Measure 2 Assessment Rubric.docx

Outcome 2 Questions: 7-16.2%

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The average score in this category will be 1.5 or higher (see rubric).

Measure 2 Type: Direct

Measure 2 Results:

Direct

Evidence Attachments:

Logic Measure 1 Assessment Quiz.docx
Logic Measure 2 Article.docx
Logic Measure 2 Assessment Rubric.docx

Outcome 2 Questions: 7-16.2%

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Recognize the differences between inductive and deductive argument forms

The average score in this category will be 1.5 or higher (see rubric).

Measure 2 Type: Direct

Measure 2 Results:

Direct

Evidence Attachments:

Logic Measure 1 Assessment Quiz.docx
Logic Measure 2 Article.docx
Logic Measure 2 Assessment Rubric.docx

Outcome 2 Questions: 7-16.2%
arguments. This change would require slightly more work, but could also be implemented by the beginning of Fall 2018. This, too, would apply to outcome three.

<table>
<thead>
<tr>
<th>Make Personnel Related Changes</th>
<th>Planned Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe Changes</td>
<td>I will communicate with the other logic instructors that there should be more emphasis on instructing students on the use of logic in relation to real-world arguments. Particular emphasis will be placed on using the textbook and program resources available for this instruction. The textbook and program currently used for Introduction to Logic already has good resources for this, and should be utilized. I will talk with the other logic instructors during the start up week meeting. This can, therefore, be accomplished at the beginning of Fall 2018.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Person/ Group responsible for action</th>
<th>Nik Byle (and David Burris)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target Date for implementation of the action</td>
<td>08/31/2018</td>
</tr>
<tr>
<td>Priority</td>
<td>Medium</td>
</tr>
</tbody>
</table>
Measure 1:
PHI faculty will administer a short 20 question quiz in all PHI 101, PHI 105, and PHI 103 sections towards the end of both the fall and spring semesters. Since a student completing an AA in philosophy must successfully complete all three of these courses, students who successfully complete these courses should have a competent grasp of the following basic components of logic and critical thinking. This quiz will require the students to do the following: 3. Evaluate validity/strength and soundness/ cogency and point out examples of fallacious reasoning (9 of the 20 questions address this outcome) The average score will be 70% or higher (14/20 correct) on the quiz.

Measure 1 Type: Direct

Measure 1 Results:

Measure 1 ArtifactOutcome 1Outcome 2Outcome 3
PHI 1011.6052.6052.483
PHI 1051.4643.143.299
PHI 1031.5632.763.298
Average1.5432.623.250

Evidence Attachments:
- Logic Measure 1 Assessment Quiz.docx
- Logic Measure 2 Article.docx
- Logic Measure 2 Assessment Rubric.docx

This Outcome was: Partially Met

Findings
Findings for Outcome 3: Questions 12 through 20 of measure one concerned logic outcome three. The benchmark was that the average score be 70% or greater. The average score was 71.7%. This benchmark was met. For measure two, the benchmark was that the average score be 1.5. The average score was 1.16. This benchmark was not met. So between the two measures the benchmark for this outcome was partially met.

Target Level Achievement
*If less than Met, program should plan further action to improve performance.

Overall Summary of Findings (Optional entry: fill out after entering the results for the last outcome/goal being assessed if you would like to provide an overall summary of your findings for the course/program/department being assessed.)

Further Action Planned

Overall Summary of Findings: For measure one, 257 artifacts were collected from Introduction to Philosophy, Introduction to Ethics, and Introduction to Logic courses from Fall 2017 and Spring 2018. Two sets of artifacts from Fall 2017 Introduction to Logic courses were not collected due to miscommunication or misunderstanding about the assignment with the adjunct faculty teaching those two sections. The detailed results of the assessment have been attached. The overall benchmark was for the average score on the quiz to be 70% or greater. The average overall score was 72.5%. This benchmark was met. Seventy-eight of the 257 students assessed did not meet the overall benchmark. For measure two, 57 artifacts were collected from four sections Introduction to Logic that had a total of 72 students enrolled. This then represents 79% of the enrollment. All 57 artifacts were assessed according to the rubric attached to measure two. The detailed results of the assessment have been attached. Overall results for measure two: Ideally, the average of the overall score across the three outcomes would have been 1.5 or greater. With an average overall score of 1.37, the overall benchmark was not met. Thirty-one of the 57 artifacts did not meet this benchmark.

What strengths were displayed through the assessments of your measures?

Outcome 3 Strengths: The benchmarks for this outcome were partially met. The average score for measure one was above the benchmark.

What weaknesses were displayed through the assessments of your measures?

Outcome 3 Weaknesses: For measure one, the questions aiming at this outcome partially overlapped with questions aimed at outcome two. Disambiguating the two outcomes as they are being assessed in measure one may help clarify where students and instruction are succeeding and failing. For measure two, the average score fell below the target benchmark. Yet again, without a full set of measures from the Fall 2017 sections of Introduction to Logic, it is more difficult to determine why that is.

Additional Comments:
Additional Comments to Outcome 3: For measure two, the paper assignments seemed to “peter out” by the time they reached this portion of the assignment; yet, this was perhaps the most conceptually intensive portion of the assignment. It involved the most logic concepts and therefore, should have been correspondingly longer than the other portions of the assignment. Clarifying this part of the assignment may help students succeed here. Measure two asks the students to connect definitions and concepts in logic to the way in which those concepts manifest in real-world arguments. Both the instructions for the assignment and the rubric may be clarified to make this more clear.

Overall Summary of Findings: For measure one, 257 artifacts were collected from Introduction to Philosophy, Introduction to Ethics, and Introduction to Logic courses from Fall 2017 and Spring 2018. Two sets of artifacts from Fall 2017 Introduction to Logic courses were not collected due to miscommunication or misunderstanding about the assignment with the adjunct faculty teaching those two sections. The detailed results of the assessment have been attached. The overall benchmark was for the average score on the quiz to be 70% or greater. The average overall score was 72.5%. This benchmark was met. Seventy-eight of the 257 students assessed did not meet the overall benchmark. For measure two, 57 artifacts were collected from four sections Introduction to Logic that had a total of 72 students enrolled. This then represents 79% of the enrollment. All 57 artifacts were assessed according to the rubric attached to measure two. The detailed results of the assessment have been attached. Overall results for measure two: Ideally, the average of the overall score across the three outcomes would have been 1.5 or greater. With an average overall score of 1.37, the overall benchmark was not met. Thirty-one of the 57 artifacts did not meet this benchmark.

I.
1. All the recommendations made for outcome two are applicable to outcome three with the following addition: The instructions in measure two that aim at this outcome could be expanded to further clarify that this portion of the assignment is asking for comparatively more than the previous portions of the assignment. Again, here not meeting the benchmark could have been partially due to a lack of clarity in the assignment, which should be avoided as best as possible.

Upload any supporting documents to further 17-18 Logic Assessment Data.xlsx
elaborate on the recommendations listed above.

**Make Personnel Related Changes**  
**Describe Changes**  
Outcome 3: Nearly all the planned actions in outcomes one and two apply to outcome three. The unique change here would be to clarify the instructions in measure two specifically related to this outcome to properly reflect the amount of work and content that would go into a good answer. This, too, could be implemented by the beginning of Fall 2018.

**Person/ Group responsible for action**  
Nik Byle (and David Burris)

**Target Date for implementation of the action**  
08/31/2018

**Priority**  
Medium

| Students will be able to make connections between major philosophers and their particular writings and ideas. | No Data |
| Students will be able to point out how the ideas of one philosopher were both influenced by and subsequently impactful on other thinkers. | No Data |
| Students will be able to explain the unique contributions made by the major philosophers in the formation and development of the central branches of philosophical study (i.e., logic, epistemology, metaphysics, ethics, etc) | No Data |
| Students will be able to construct and advance, in writing, an original thesis, defining and clarifying key terminology, as well as providing true evidence that supports the thesis and renders it plausible | No Data |
| Students will be able to anticipate and respond to potential objections to one’s thesis, as well as explain why alternative views are questionable and implausible | No Data |
| Students will be able to obey conventional rules of grammar, syntax, and spelling, in addition to conforming one’s writing to a consistent set of style guidelines, citing any and all sources, and having a clear and logical arrangement of ideas. | No Data |
Assessment Period(s): AY 2017-2018
Organization Type(s): College, Department, Division, Program, University
Organization(s): Activities

Display blank entries: No

AWC

AY 2017-2018

Activities
Increase Event Attendance and Track Student Satisfaction at Events.

<table>
<thead>
<tr>
<th>Measure 1:</th>
<th>Increase overall event attendance while tracking student satisfaction.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure 1 Type:</td>
<td>Indirect</td>
</tr>
<tr>
<td>Measure 1 Results:</td>
<td>We had little data to prove that we increased attendance to events from years before. However we were able to collect data that suggests our students are satisfied with our activity and events overall.</td>
</tr>
</tbody>
</table>

This Goal was: Partially Met

Findings

Although we could theorize that more students were in attendance because we had no data from previous years it was hard to prove. Additionally we have since determined that all of the data we collected shows student satisfaction but does not show proof of how this effects a students overall experience at Arizona Western. We believe strongly that having a strong sense of community is responsible for student success and retention we need to determine ways to assess our specific program objectives.

Target Level Achievement

Overall Summary of Findings (Optional entry: fill out after entering the results for the last outcome/goal being assessed if you would like to provide an overall summary of your findings for the course/program/department being assessed.)

We began planning for the school year in the summer of 2017 and while doing so we determined that it was most ideal to create a master schedule of items that would be the focus for the whole department. This would allow us the opportunity to identify projects that could benefit with partnering or consolidating. We included all of the game schedules and made a master plan and added each event to our calendars. This is an example of our Fall Programming Schedule Leadership and Activities Projects At-A-Glance Spring CAB Calendar CAB Promotion Schedule-Assessment plan Welcome Back Week Schedule Family Night Coordinating Hispanic Heritage Month Planning Revising Club/Activities Page Program Review AOD Programs Future Leaders Town Hall Consent Speaker Fall Leadership Workshop Volunteer Schedule with Athletics Parker Travel Homecoming/Halloween Planning El Toro Bowl Planning Parade participation All Student Leader Community Service Things we are partnering on December 3rd, 6pm-10pm, El Toro Bowl @ Veteran’s Memorial Stadium September 11th Consent Speaker, Schoening Conference Center Things we are coordinating August 21-24th, Students Helping Students 24th, 3:30 Presidential Leadership Society Meet and Greet 28th, 4:30 Freshman Interest Meeting/September

7th, Game Room Tournament 18th, 11am-1pm Constitution Day 21st Club Fair 25th-28th, Hispanic Heritage Week Programming

Dance Performer Chalk Murals 22nd, 8am-8pm, Parker Site Visit @ Parker Learning Center 23rd, Raising the Bar Conference TravelOctober

19th, 5pm Mr. and Ms. Matador Nominations Due @ Campus Life 30th-4th, Homecoming Week 26th, 11am-2pm, Oct“sober” Fest @ 3C 31st, 3pm-5pm Halloween Office Decorating Competition @ All CampusNovember

4th, 7pm-10pm, AWC Homecoming Football Game @ Veteran’s Memorial Stadium 16th, 5:30pm-8:30pm, Family Night @ Yuma Campus 22nd, Crossroads Mission Volunteer @ Crossroads December

30th, 11am-1pm, El Toro Bowl Golf Cart Parade Things we are participating in September 14th, AWC Opening Reception for Hispanic Heritage @San Luis Library 21st Yuma Youth Town Hall @ Schoening Conference Center October

South Yuma County Transfer Fair/Family Night @ San Luis Learning Center Safe Zone Training November

Freedom Run 5K @ AWC Gym Veterans Day Parade Dia Del Campesino Community Service Event @ Joe Orundo Park Future Leaders Town Hall December

1st, El Toro Bowl Banquet 2nd El Toro Bowl Game Dorothy Young Light Parade Partner projects/Things they assist with Talia

Game room Tournaments Family Night Entertainment, Campus Registration Freshman V.P. Training AOD Committee Homecoming Planning Event Facility Requests Halloween Decorating Competition Homecoming SAB promotion Kelsey Wall of Expression Family Night Accessible for students. We also found it gave the staff flexibility and made it easy for us to share our data with others.

What strengths were displayed through the assessments of your measures?

To get more student feedback we purchased 5 ipads and created a shared login for Survey Monkey for members who put on events to access. Before each event we uploaded a survey to these ipads and had students fill them out following the event. This proved to be very successful as a means of gathering data because it was fast and accessible for students. We also found it gave the staff flexibility and made it easy for us to share our data with others.

What weaknesses were displayed through the assessments of your measures?

When there were events with several 100 students or more we found our surveying to be more complicated. Additionally the data we collected proved that students were pleased with the events but did not show or prove how it effected their overall success and retention as an AWC Student.

Additional Comments:

Unfortunately there is no way to share the responses and the data of our individual findings. However the following are the events that we assessed.

- Created 05/01/2018: Resident Exit Survey Created 02/13/2018: Safe Spring Break Created 05/15/2018: Academic Library Drop-In Workshop Survey Created 10/04/2017: How to be a Successful Student Workshop Created 04/04/2018: Step Up Training Created 04/04/2018: Growth Mindset Workshop Created 3/21/18: Created 03/22/2018: Music Playlist Created 03/21/2018: Test-Taking Strategies Workshop Created 03/08/2018

1. 
• Inviting more areas to join the committee
• Keep created surveys for each Student Learning Outcome
• To track attendance
• To track learning outcomes
• Help assess what programs are successful and which aren’t
• add additional question that will assess student satisfaction with AWC
• Will be done with Tablets
• With a backup option of student being able to access survey after event
• Will be streamed from a excel spreadsheet directly to TK20
• Printing 200 more calendars than last year
• Student Involvement: During School Year students will be asked to sit at the table during planning process

2. 
Additionally we would like to update our webpage making it easier for students to access event information.

Website Revamp Goal: Increase Activities webpage presence to make more accessible for students

Proposed location: From AWC’s front page à “Current Students” tab à “Student Support” sub tab

That way we can be distinguished from SGA/SAB, but still be a resource we encourage the student body to use

Proposed information to include:
• Mission statement (incorporate Student Learning Outcomes)
• Vision statement
• Current Calendar
• General feedback link to encourage student body input
• Name
• Student email
• Student ID #
• Subject of feedback (can have a drop down list of related options to select from)
• Comments and suggestions
• Would you like a representative from CAB to contact you regarding your feedback?

Restructure Outcome Statement
Revised

Revise Measurement Approach
Planned Changes

Collect and Analyze Additional Data and Information
Planned Changes

Describe Changes
We will be moving from Survey Monkey to Qualtratics. Additionally we are going to meet to determine survey questions that better help us understand student needs and satisfaction with the college rather than individual events.

Make Technology Related Improvements
Implemented Changes

Person/Group responsible for action
Shara Roberts

Target Date for implementation of the action
08/20/2018

Priority
High

As a result of attending events, students will enhance their feeling of engagement, belonging, and loyalty to Arizona Western College

No Data
Assessment Period(s): AY 2017-2018
Organization Type(s): College, Department, Division, Program, University
Organization(s): Assessment and Program Review
Display blank entries: No

AWC

AY 2017-2018

Assessment and Program Review

Educate AWC constituents on the value of assessment.

Measure 1:
Provide training and/or presentations to at least 50 faculty and institutional department administrators on assessment and the TK20 application.

Measure 1 Type: Direct

Measure 1 Results: The goal of 50 attendees was not reached. For each of the 12 Tk20 sessions offered, most only saw an attendance of 3 individuals and often there were one or none.

Measure 2:
Increase attendance of students, faculty, and admin by 10% for more robust assessment discussions at Assessment Coalition meetings.

Measure 2 Type: Direct

Measure 2 Results: The number of students have increased at the coalition meetings however there has been no increase in faculty, staff, and or admin attendance. The conversations are very lively and full of honest evaluations from students of their thoughts regarding teaching and learning. The students had two requests of the coalition group in 17-18: employ third-party evaluators for all faculty and staff assignments, tests/exams, and teaching methods create posters for all classrooms with a url to a simple form for students to provide continual feedback on faculty teaching because many students are intimidated by faculty and feel they are unapproachable this request is being full-filled and will be implemented in 18-19 under the 'How's My Teaching?' assessment campaign

This Goal was: Partially Met

Findings
Most training sessions offered this year had low attendance. The Assessment Coalition has also not grown in all areas however the conversations are very productive and have led to some new assessment initiatives at the request of students to help improve teaching and learning.

Target Level Achievement
Partially Met

*If less than Met, program should plan further action to improve performance.
Further Action Planned

What strengths were displayed through the assessments of your measures?
NA

What weaknesses were displayed through the assessments of your measures?
The measures simply track the number of people attending training or presentations. The data does not demonstrate an understanding of the importance and value of assessment.

Additional Comments:
The only way to measure whether or not faculty understand the value of and the necessity for conducting assessment is by an increase in completed quality assessment plans and an increase in using the results to drive future plans. The students are very helpful in the Assessment Coalition meetings and so those will continue.

1. This office must continue to work with individuals and groups to better explain the purpose and benefits of honest, in-depth assessment of student learning outcomes and departmental goals.

Implement Additional Training
Implemented Changes

Person/ Group responsible for action
Assessment and Program Review Office

Target Date for implementation of the action
08/20/2018

Priority
High
Ensure AWC documents evidence of assessment

**Measure 1:** The GECC will collect a 10% random sample of student work from all GE quantitative analysis designated sections in fall 2017. The artifacts will be assessed by the GECC against the quantitative analysis rubric and results published.

**Measure 1 Type:** Direct

**Measure 1 Results:** The GECC received 129 student artifacts of which 67 were assessed. The assessment process itself revealed several issues that must be addressed before a valid assessment of quantitative analysis can be conducted on an institutional basis. To address the issues the GECC has agreed that: successful assessment requires all components (assignment/rubric/student artifact/faculty comments) there should be a uniform submission requirement (pdf, redacted, etc.) faculty should identify when the assignment appears in the course (scaffolding) The table below reflects how the artifacts received were scored:

<table>
<thead>
<tr>
<th>Exceeds</th>
<th>Meets</th>
<th>Needs Improvement</th>
<th>Unable to Determine</th>
<th>Digital Literacy assignment components and expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>8%</td>
<td>28%</td>
<td>60%</td>
<td>2%</td>
<td>8% 28% 60% 2%</td>
</tr>
</tbody>
</table>

**Measure 2:** Increase the number of completed course level assessment plans by 10% from the previous academic year (48). Increase the number of completed administrative department assessment plans by 10% from the previous academic year (14). Increase the number of completed academic program level assessment plans by 10% from the previous academic year (3).

**Measure 2 Type:** Direct

**Measure 2 Results:** Instead of an increase in the submission and completion of assessment plans, there was a significant drop in course and admin department plans. There was however an increase in academic program plans to 5. Unfortunately, one plan was not fully completed.

**This Goal was:** Not Met

**Findings**

The requested 10% of random sample QA artifacts was not collected and of those that were, many fell below expectations or were unable to be assessed because they did not meet the criteria of a QA artifact. The efforts to increase the number of completed assessment plans was not very successful. Rather than increasing the number of completed plans, there was a reduction in the number of completed plans.

**Target Level Achievement**

Not Met

*If less than Met, program should plan further action to improve performance.*

**Further Action Planned**

Tracking the number of completed assessment plans and assessing artifacts is beneficial.

**What weaknesses were displayed through the assessments of your measures?**

NA

1. Based on the results of the QA assessment, the GECC will work to develop a more appropriate rubric for assessing QA artifacts and will provide more training and/or instructions for faculty and students before requesting artifacts.

2. To continue to work toward improving assessment at AWC, the Assessment Office will work harder to help more individuals develop an understanding of the purpose and value of assessment and generate more involvement in and expectation for assessment and assessment results.

**Person/Group responsible for action**

Assessment and Program Review Office

**Target Date for implementation of the action**

08/20/2018

**Priority**

High
Assessment Period(s): AY 2017-2018
Organizations Type(s): College, Department, Division, Program, University
Organization(s): CAMP
Display blank entries: No

AWC

AY 2017-2018

CAMP
To provide outreach and identify 100 potential participants and recruit/enroll 40 eligible farmworker students in need of CAMP services annually.

**Measure 1:**

**Measure 1 Type:** Direct

**Measure 1 Results:**

Conducted the CAMP Survey and/or CAMP Workshop for Yuma, Kofa, Cibola, Gila Ridge, San Luis, Antelope, PPEP Tec High Schools and Harvest Prep Academy.

---

**Measure 2:**

**Measure 2 Type:** Direct

**Measure 2 Results:**

CAMP informational booth during Job & Education Fair Yuma Civic Center AIFC CAMP Presentation at the Pivot Point PPEP Inc. El dia Del Campesino Tamale Festival Youth Advisory Group Mexican Consulate-CAMP/AWC

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**Measure 3:**

**Measure 3 Type:** Direct

**Measure 3 Results:**

Outreach to migrant and farm worker parents one-on-one and in groups.

---

**Measure 4:**

**Measure 4 Type:** Direct

**Measure 4 Results:**

115 students applied to the CAMP program. Each application was screened for eligibility and a copy of the eligibility check list was attached to each student file.

---

**Measure 5:**

**Measure 5 Type:** Direct

**Measure 5 Results:**

Select and enroll 40 eligible CAMP students.

---

**Evidence Attachments:**


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**This Goal was:**

**Findings**

*If less than Met, program should plan further action to improve performance.

Overall Summary of Findings (Optional entry: fill out after entering the results for the last outcome/goal being assessed if you would like to provide an overall summary of your findings for the course/program/department being assessed.)

The new outreach methods used last year and improved upon this year reached a bigger number of students and potential CAMP Students.

Outreach efforts worked to reach more students, but not all students follow-up to complete the entirety of the CAMP application.

Continue to work with High School Counselors to ensure an accurate and complete CAMP survey in all local High Schools in order to identify a greater number of potential students.

Continue to have constant contact with a more rigorous follow-through for potential students, through workshops,

1. 1661 students were outreached. 115 students applied for the CAMP program. 40 eligible students were selected and enrolled in CAMP.

2. Further Action Necessary
Describe Changes

1. Continue to work with community partners and work to make new partners, to be able to outreach to more potential students and their parents.

Other
No Change Required

Describe Changes
No Change Required

To annually provide (100%) 40 students with admissions, academic support services and cultural activities through a Living/Learning Community to successfully complete their first year of college and continue in postsecondary education.

Measure 1:
Provide 100% of the students with academic support services including tutoring, academic advising, and skills building workshops; and comprehensive cultural and social activities in order to increase classroom attendance, completion and retention, and a holistic college experience measured through programming attendance tracking.

Measure 1 Type:
Direct

Measure 1 Results:
100% (40) students were provided with 100% of student support services and programming activities. Please see Participation Report 2017-18 attachment.

Measure 2:
Collection of CAMP Meeting programming surveys collected during the Spring 2018 semester. CAMP Meeting topic presentations (variety of topics: speakers, activities, and workshops) were surveyed to see which programming activities were effective and well-received.

Measure 2 Type:
Direct

Measure 2 Results:
The CAMP meeting surveys showcased that all five sample topic presentations (which varied in academic workshops presented by different staff and departments) were all favorably received with the vast majority of students learning new information and enhancing their college experience. For greater detail and specific comments, please see attachment: CAMP Meeting Programming Survey Results.

Measure 3:
Comparison of grades of CAMP students, the general student population, and all other students living in the residence halls for English and math courses.

Measure 3 Type:
Direct

Measure 3 Results:
Measurable percent increase for CAMP students vs. the general student population and other residential students. Overall, CAMP students had a higher percentage of A and B scores as well as a higher retention and completion rate in English and math courses compared to general population and residential students. CAMP students generally also had less F scores compared to the other population of students. Please see Attachment: Fall 2016 CAMP vs All vs Residence Please see Attachment: Spring 2017 CAMP vs All vs Residence

Evidence Attachments:
CAMP Meeting Programming Survey Results.docx
Spring 2017 CAMP vs All vs Residence.xlsx
Participation Report 2017-18.xlsx
Spring 2017 CAMP vs All vs Residence.xlsx

This Goal was:
Met

Findings
40 students (100%) were provided with CAMP services. These findings were tracked within the comprehensive Programming Report. Consistent attendance and support was reinforced by higher percentage student grades for cohort English and math classes compared to the general population, and through surveying student interest and engagement in CAMP Meeting programming.

*If less than Met, program should plan further action to improve performance.
Further Action Unnecessary

What strengths were displayed through the assessments of your measures?
The method of service delivery is strong. Mandatory attendance of activities that is documented through sign-in sheets continues to work. 100% of students received advising, cultural opportunities, academic support, and much more. Though attendance and participation to the majority of student service programming is mandatory, continuing to survey the students' thoughts and reflection on CAMP meeting events is helpful because the results continue to be overwhelmingly positive. The majority of students surveyed found these selected events enjoyable and would like to see future events similar to said surveyed events, found the quality of the content as important to the college experience, and found the events themselves useful. This gives the program a good idea of the events being not only useful but helpful for freshman students. Working with other programs on campus, we were able to create a general survey for events that has been simple and effective as well. As seen in previous cohorts, students in the program generally were more successful in their English and math courses than the general student population because of mandatory tutoring attendance. Compared to other residential students on campus, CAMP students had a higher percentage in retained and passed students in English and math courses. This further shows that cohort English and math classes with mandatory tutoring is helpful.

What weaknesses were displayed through the assessments of your measures?
Though 100% of student academic support services were provided to all 40 students, not all events had 100% participation or attendance. Unlike previous semesters, the persister for the 2017-18 cohort had a strong start in programming attendance for the Fall 2017 semester. This might have been in part due to their resident status in the residence halls, something the program helped in providing to the persister. However, due to serious personal problems, the persister still did not complete the program.

1. Desired goal met. The program will continue to use this delivery method but continue to look for areas of improvement. The recommendation from the last assessment plan of surveying the students about the usefulness of certain activities was implemented, and the results showed that students found CAMP Meeting topics useful.

2. Continuing to survey more programming events throughout the semester would be a good way of getting more information on which events are the most engaging or useful to students, which may affect their motivation and willingness to connect and participate future programming events. We met our action from the previous action plan by improving and standardizing the survey method.

Other
No Change Required

Describe Changes
No Change Required
Retaining at least 36 students (90%) through the first year of college.

| Measure 1: | 36 students (90%) will be retained through their first year of college. |
| Measure 1 Type: | Direct |
| Measure 1 Results: | 38 (95%) of the 40 students were retained in their first academic year of college. We will have 2-3 potentialpersisters. See Attachment. |
| Evidence Attachments: | CAMP Objectives 3 Data 2017 18.xlsx |
| This Goal was: | Met |
| Findings | The goal of retaining 90% of the students for year 2017/18 was met. We retained 95%. Retention efforts included tutoring attendance and grade checks which helped with student completion of courses. The incorporation of different presenters during CAMP Meeting Programming was also beneficial. |

*If less than Met, program should plan further action to improve performance.*

| What strengths were displayed through the assessments of your measures? | Retention efforts included tutoring attendance and grade checks which helped with student completion of courses. Implementing more diverse speakers from different programs to speak with students was also helpful. |
| What weaknesses were displayed through the assessments of your measures? | None identified. All services were provided as in past years. Students this cohort were highly motivated and focused. Student apathy and lack of motivation was not as much of a concern as in previous years; however, some students had extreme emotional and personal issues that made for a difficult semester. |

**I.**

Meeting the desired goal was met and exceeded. Mandatory tutoring and campus activities attendance is still very helpful. We will continue to implement mandatory participation for a greater connection to the college community and academic achievement. Providing more motivational opportunities to invest student participation into mandatory activities will be continued to be explored and implemented.

**Other**

No Change Required

Describe Changes

No Change Required

To enroll at least 32 of the 36 retained students (89%) in a second year of college.

| Measure 1: | Enroll at least 89% (32 students) in a second year of college. Achieved through academic advising sessions and follow-up services. |
| Measure 1 Type: | Direct |
| Measure 1 Results: | All 35 completers enrolled in a second year of college (100%), and 2 possible persisters enrolled in a second year of college. |
| This Goal was: | Met |
| Findings | Desired outcome was met and exceeded. 100% of completers and persisters that were retained enrolled in a second year of college. |

*If less than Met, program should plan further action to improve performance.*

| What strengths were displayed through the assessments of your measures? | Current retention efforts continue to work for students that attend and participate in program mandatory activities and responsibilities. Three formal and mandatory advising meetings a semester (a total of six throughout the academic year) were important in giving the students time and support in planning their educational academic plans and registering for classes. The program continued to implement engaging programming events, as planned during the last assessment cycle, specifically in the weekly CAMP Meetings. By providing an assortment of different speakers, presentations, team building activities, and cultural events in the meeting, it was our hope that students would have a greater connection to the campus community. This greater connection would then in turn lead to greater investment in continuing to pursue their degrees at Arizona Western College. |
| What weaknesses were displayed through the assessments of your measures? | In general, students still continue to perform better in the Fall semester because their grades and participation continued to decrease in the Spring semester. This cohort's students did well academically during their first semester. This can be attributed to being new to how the program works and so attending as many activities and mandatory tutoring as possible. However, with the Fall semester, on average, they may create a sense of security and therefore put less effort into the Spring semester. We tried implementing different speakers to further motivate and engage students. |

**I.**

Considering that students continue to become less motivated in the Spring semester, especially toward Midterms, the CAMP program will need to continue to find creative ways to hold student attention and engagement within the program. One way is to continue to provide engaging, interactive CAMP meetings like the ones we provided this academic year. As noted in the last assessment, students seemed very receptive to guest speakers, especially when the information was useful beyond the cohort (ie. Healthy Relationships, Job Preparedness, Financial Literacy). We will need to continue to invite guests and provide activities in the weekly CAMP meetings, and then surveying students to see which events/speakers were most effective.

**Other**

No Change Required

Describe Changes

No Change Required
To offer 100% (40 students) follow-up services.

Measure 1:
Offer 100% follow-up services to previous CAMP students by tracking the amount of times these students came into the CAMP office throughout the Fall 2017 and Spring 2018 semesters. We utilized a specific "follow-up services" sign-in sheet that tracked the amount of times students came into the office, as well as tracking the type of service required by visiting students.

Measure 1 Type:
Direct

Measure 1 Results:
100% of previous cohort students were offered follow-up services. 84 students came into the office for follow-up services which was tracked by "Follow-Up Services" sign-in sheets. Results showed that even though 84 students came into the office for follow-up services (which is an increase of sixteen students from last year's assessment), there was a total of 1,323 separate follow-up service sessions provided. Please See Attachment.

Evidence Attachments:
2017-18 Follow-up Services Tracking.xlsx

This Goal was:
Met

Findings
100% of previous cohort students were offered follow-up services. Students from previous CAMP cohorts visited the CAMP office frequently throughout the semester and needed help in many different areas such as academic advising, financial aid and FAFSA, and/or to use the computer or find a sense of community/social support. The sign-in sheets tracked what type of follow-up services students needed, and these were some of the main reasons students came into the office. From the amount of students that signed in, one can see that students felt comfortable coming into the CAMP office and asking for continued assistance. Their first year experience with the program had many students return because they felt comfortable with the staff. Many students from the previous cohort also returned to live on campus. This allowed for greater visitations for the office.

*If less than Met, program should plan further action to improve performance.
Further Action Unnecessary

What strengths were displayed through the assessments of your measures?
As seen in previous years, students that worked for the program during this academic year, whether it be in work study or part-time positions, were more likely to visit the office more frequently. These students would come to the office in-between work hours and classes because the space was available. Students that worked for other departments on campus like the Residence Halls or Ambassadors would also visit frequently. If the students were on campus already, many would take the time to stop by the office. This further increased likelihood because many CAMP students continued to live on campus. Utilizing social media, specifically CAMP's Facebook page, was another efficient way to keep past cohorts connected by providing important updates and information like scholarship and campus activity information.

What weaknesses were displayed through the assessments of your measures?
100% follow-up services were offered but not 100% of past cohort CAMP students came to the office for these services. The ones that did come in, however, continued to attend as necessary. For most students, it wasn’t a one-time visit.

1. Desired goal met. In order to provide greater attention to detail and best practices, students that come into the office for follow-up services should continue to be encouraged to attend programming activities throughout the semester; a practice staff already incorporates. In this way, past students can still be connected to the living learning environment and attend helpful workshops like "Cash For Scholarships" or "Transfer Events"

2. CAMP staff should also continue to utilize social media, specifically CAMP's Facebook page, to send important updates alongside student emails, especially considering how many students are inconsistent with checking and responding to emails. Creating helpful "CAMP Program" videos or video testimonials with past cohort students can be another interesting and creative way to provide support whilst using social media to further connect students to the program. These videos that the program has implemented by creating a CAMP YouTube account. We will continue to promote and add to this.

Other
No change required

Describe Changes
No change required
Assessment Period(s): AY 2017-2018
Organization Type(s): College, Department, Division, Program, University
Organization(s): Health and Wellness Services
Display blank entries: No

AWC

AY 2017-2018

Health and Wellness Services
To assist with providing a safe campus

Measure 1: Promote and increase the implementation of the StepUP Bystander Intervention, Safe Zone, and Healthy Relationship programs.

Measure 1 Type: Indirect

Measure 1 Results: Several StepUP, Safe Zone, and Healthy Relationship trainings were conducted over the course of the 2017-2018 school year, resulting in over 335 participants and individuals trained both in general education trainings and train the trainer trainings.

Measure 2: Increase awareness of potential threats/dangers and risk behaviors faced by college students.

Measure 2 Type: Direct

Measure 2 Results: An increase in awareness was demonstrated via a majority (>50%) of positive responses collected from participants following these trainings.

Measure 3: An increase in the knowledge and tools that can be used to intervene in and prevent situations from happening or getting worse when necessary.

Measure 3 Type: Direct

Measure 3 Results: An increase in knowledge and tools was demonstrated via a majority (>50%) of positive responses collected from participants following these trainings.

Measure 4: Increase education on consent among all students, primarily athletes and dorm residents.

Measure 4 Type: Direct

Measure 4 Results: Consent and the law was a major focus of each Healthy Relationship training that was administered to over 180 students who also commented on their understanding and reception of new information.

Measure 5: Increase awareness of Health and Wellness Services in the event of a dangerous situation.

Measure 5 Type: Indirect

Measure 5 Results: Facilitating trainings, table events, campus events and increasing a campus presence through the formation of a Student Health advocates club that can assist in the facilitation of more trainings and awareness events to increase safety helped us to reach more students and get more exposure. These events resulted in contact with over roughly 450 students.


This Goal was: Partially Met

Findings Lack of attendance at campus events, trainings, and activities Resistance from Athletics toward attendance and participation in trainings

Target Level Achievement Partially Met

*If less than Met, program should plan further action to improve performance.

What strengths were displayed through the assessments of your measures? Major strengths reflected included the effectiveness of trainings and activities toward reaching an intended goal.

What weaknesses were displayed through the assessments of your measures? Lack of attendance and participation Lack of directed and purposeful data for SafeZone and StepUP trainings

1. Create means of evaluation for Safe Zone and StepUP trainings
2. Create improved means of evaluation and data collection for all events and activities
3. Target professors, clubs and students via more and different means to increase attendance

Revise Measurement Approach Planned Changes

Collect and Analyze Additional Data and Information Planned Changes

Change Methods of Data Collection Planned Changes

Describe Changes Will come up with an improved way of measuring effectiveness and measuring the reactions to Safe Zone and StepUP trainings. More directed paper evaluations. Collecting a benchmark of where we are for comparison.

Revamp Services Implemented Changes

Make Technology Related Improvements Implemented Changes

Make Personnel Related Changes Implemented Changes, Planned Changes

Implement Additional Training Implemented Changes, Planned Changes

Add New Service(s) or Program(s) Implemented Changes, Planned Changes

Describe Changes New Health and Wellness coordinator Update and improve Website and access to services Addition of SHA club to increase the reach and accessibility of trainings, awareness topics and wellness education

Person/ Group responsible for action Christine Rouff

Priority Medium

Create connections with community partners No Data

Raise awareness about Student Health and Wellness Services to faculty, staff, and students No Data

Increase student use of Health and Wellness/Cottage #1 No Data
Students, faculty and staff will refer students of concern by submitting an incident report.
No Data

Students will connect with the community services they need.
No Data

Students, faculty and staff will recognize when to refer students to Health and Wellness.
No Data
Assessment Period(s): AY 2017-2018
Organization Type(s): College, Department, Division, Program, University
Organization(s): International Student Program
Display blank entries: No

AWC

AY 2017-2018
International Student Program

Enhance awareness of International Students and International Programs on campus among faculty, staff, and domestic students
No Data

Recruitment
No Data

Retention
No Data

Completion
No Data

Increase the number of international students with effective recruiting methods.

Measure 1: Increase non-solicited recruitment methods (AWC website, submitted applications) by %10
Measure 1 Type: Direct
Measure 1 Results: Non-solicited students enrollment increased by %5
Measure 2: Increase student recruitment by %20 through actively engaging potential students
Measure 2 Type: Direct
Measure 2 Results: Increased student enrollment by %100
This Goal was: Partially Met

Findings
Active recruitment resulted in %100 increase in enrollment however non-solicited recruitment is not an effective recruitment tool.

Target Level Achievement
Partially Met
Further Action Planned

Overall Summary of Findings
We will focus all our efforts on targeted recruitment efforts.

What strengths were displayed through the assessments of your measures?
Solicited recruitment works great.

What weaknesses were displayed through the assessments of your measures?
Non-solicited recruitment method does not work.

1. Continue to utilize the current students to improve outreach to potential students.
2. Travel to the other countries to recruit
3. Continue working with athletic department to recruit potential international student athletes.

Revise Measurement Approach
Planned Changes

Person/ Group responsible for action
Aybuke Keehn

Target Date for implementation of the action
08/01/2018

Priority
High
Help students understand legal regulations in order to be able to obtain their student visas.

Measure 1: Number of students who obtain their student visas.
Measure 1 Type: Direct
Measure 1 Results: %50 increase in students who obtained their student visas
This Goal was: Met
Findings %100 increase in students who obtain their student visas
Target Level Achievement Met
What strengths were displayed through the assessments of your measures?
1. Students were guided on a step by step path that help them go through the process of obtaining their student visa easier and this method works the best.
Person/ Group responsible for action Aybuke Keehn
Target Date for implementation of the action 08/01/2018
Priority High
What weaknesses were displayed through the assessments of your measures?

1. Students need a couple more orientation for the IRS Tax policies on international students who are on athletic scholarship.

Revise Measurement Approach Planned Changes
Priority High

Help students understand and comply with institutional requirements.

Measure 1: Attending to mandatory international students orientation upon arrival to the college.
Measure 1 Type: Direct
Measure 1 Results: After an hour long orientation session and having them read the new international student catalog, they have to sign and return back to me the statement page that states, “They have read and understood institutional requirements”
This Goal was: Met
Findings International students have been very actively involved with the campus life and know their academic requirements.
Target Level Achievement Met
What strengths were displayed through the assessments of your measures?
What weaknesses were displayed through the assessments of your measures?
1. Offer the students multiple orientation session on different subjects.
Revise Measurement Approach Planned Changes
Priority High

Students will maintain F-1 Status.
No Data

International Students receiving full US scholarships will acquire a social security number and file taxes.
No Data

Students will be aware of global issues.
No Data
**Planning 001: Assessment Plan Data for Organizations**

**Assessment Period(s):** AY 2017-2018

**Organization Type(s):** College, Department, Division, Program, University

**Organization(s):** KEYS

**Display blank entries: No**

**AWC**

**AY 2017-2018**

**KEYS**

**Continue with KEYS program presence at extended campuses**

| Measure 1 | KEYS Staff will be present to share program information in South County and Parker Campuses at least 3 times per semester |
| Measure 1 Type: | Direct |
| Measure 1 Results: | Fall Semester: 3 South County Visits (2 advisor visits, and San Luis Family Night) 1 Parker Visit (Director of TRIO Programs Visit) Spring Semester: 1 South County Visit (Somerton Family Night) 4 Parker Visits (College Success Night, and 3 Director of TRIO Programs Visit) |
| This Goal was: | Not Met |
| Target Level Achievement | Not Met |

*If less than Met, program should plan further action to improve performance.*

1. Include South County and La Paz visits in planning before the semester/year begins.

**Revamp Services**

**Describe Changes**

| Describe Changes | Include South County and La Paz visits when doing initial program planning. |

**Person/Group responsible for action**

| KEYS Staff |

**Target Date for implementation of the action**

| 08/20/2018 |

**Priority**

| High |

**Implement CashCourse Financial Literacy Curriculum**

| Measure 1 | All active participants will have access to CashCourse Financial Literacy Curriculum |
| Measure 1 Type: | Direct |
| This Goal was: | Met |
| Findings | CashCourse Financial Literacy curriculum was implemented and made available to active students via Blackboard. |
| Target Level Achievement | Met |

**What weaknesses were displayed through the assessments of your measures?**

| Measures do not clearly define how many students actually completed the curriculum. |

1. Be more clear and consistent in the marketing of CashCourse Financial Literacy curriculum. Consider making it part of an advisor appointment of focus session.

**Revamp Services**

**Describe Changes**

| Include financial literacy completion during focus session appointment. |

**Person/Group responsible for action**

| KEYS TRIO |

**Target Date for implementation of the action**

| 08/27/2018 |

**Priority**

| High |

**Establish database with KEYS alumni information**

| Increase alumni engagement through social media campaigns and alumni reception |
| Measure 1 Type: | Direct |
| Measure 1 Results: | Spring 2018- KEYS SSS TRIO Alumni reception was held with 20 alumni in attendance. event was promoted through social media and alumni data was collected via google docs |
| This Goal was: | Met |
| Findings | With data from alumni reception and online campaign, initial database has been established. |
| Target Level Achievement | Met |

**What strengths were displayed through the assessments of your measures?**

| Strong use of technology |

1. Continue partnership with AWC alumni association to continue with annual KEYS alumni receptions. Improve marketing to continue reaching more alumni.
Students will be able to demonstrate the skills necessary to use a variety of information tools to locate and retrieve information in various formats for a variety of academic, financial, personal, professional or vocational purposes.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Type</th>
<th>Results</th>
<th>Type</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Direct</td>
<td>51/64=80% of 2017-2018 GPS students participated in Peer Mentoring program.</td>
<td>Direct</td>
<td>26/62=42% of 2017-2018 cohort attended study sessions, tutoring, or met with professors.</td>
</tr>
<tr>
<td>2</td>
<td>Direct</td>
<td>80% of 2017-2018 cohort will attend study sessions, tutoring or meet with professors.</td>
<td>Direct</td>
<td>80% of 2017-2018 cohort registered for ORI 101 will complete Video Learning Showcase Presentation as part of ORI 101 class.</td>
</tr>
<tr>
<td>3</td>
<td>Direct</td>
<td>27/29=93% completed Video Learning Showcase presentation as part of ORI 101 class.</td>
<td>Direct</td>
<td>12/14=86% completed Career Timeline presentation as part of ORI 105 class.</td>
</tr>
<tr>
<td>4</td>
<td>Direct</td>
<td>80% of 2017-2018 cohort registered for ORI 105 will complete Career Timeline presentation as part of ORI 105 class.</td>
<td>Direct</td>
<td>3 out of 4 measures were met Measure 1-Met, Measure 2-Not Met, Measure 3- Met, Measure 4- Met</td>
</tr>
</tbody>
</table>

This Outcome was: Partially Met

Target Level Achievement: Partially Met

*If less than Met, program should plan further action to improve performance.

What strengths were displayed through the assessments of your measures? Peer Mentoring Program ORI 101 and 105 courses for GPS students

What weaknesses were displayed through the assessments of your measures? Academic support needs to be encouraged more, tutoring attendance

1. Revisit tutoring program format and outreach strategies to increase student tutoring participation.

Revamp Services Planned Changes Increase outreach involving tutors and skills coaches to encourage student participation.

Describe Changes

Person/Group responsible for action KEYS Team

Target Date for implementation of the action 09/04/2018

Priority High
Students will be able to apply quantitative methods to problem solving and decision making for school, work, and home life.

Measure 1: 50% of program participants will be able to demonstrate money skills management by creating a detailed budget of their monthly expenses.

Measure 1 Type: Direct

Measure 1 Results: 41/224 = 18% of active program participants created a detailed budget of their monthly expenses.

Measure 2: 15% of active program participants will complete a financial literacy workshop or online module.

Measure 2 Type: Direct

Measure 2 Results: 41/224 = 18% of active program participants created a detailed budget of their monthly expenses.

Measure 3: 60% of students who received a grade check will return at least one completed grade check.

Measure 3 Type: Direct

Measure 3 Results: 85/131 = 65% of students who received a grade check completed at least one grade check.

This Outcome was: Partially Met

Findings 2 out of 3 measures were met

Target Level Achievement Partially Met

*If less than Met, program should plan further action to improve performance.

Further Action Planned

What strengths were displayed through the assessments of your measures? Data for assessment measuring was readily available and easy to interpret.

What weaknesses were displayed through the assessments of your measures? Some of the components being measured were combined, so the data might not be the most accurate reflection.

1. Keep separate records for each financial literacy component instead of combining the data.

2. To encourage student completion of financial literacy components, make financial literacy completion a part of the advising/focus session student appointment.

Revise Measurement Approach Planned Changes

Collect and Analyze Additional Data and Information Planned Changes

Describe Changes Keeping financial literacy and budget information separate when being collected and recorded. Collaborate with CAB committee to collect information from relevant events/workshops.

Revamp Services Planned Changes

Describe Changes Include financial literacy completion during focus session/advising appointments.

Person/Group responsible for action KEYS staff

Target Date for implementation of the action 08/13/2018

Priority High
Students will be able to develop personal and group communication, decision-making conflict resolution, and leadership skills for successful transition and adjustment into work world or the university.

Measure 1: 70% of active program participants will complete at least one of the following activities: Focus Session, Peer Mentoring, or Advising appointment.

Measure 1 Type: Direct

Measure 1 Results: 175/224 = 78% of active program participants completed a focus session

Measure 2: Group Communication: 80% of GPS students will participate in Club SOTE activities

Measure 2 Type: Direct

Measure 2 Results: 36/62 = 56% of GPS students participated in Club SOTE activities

Measure 3: 100% of KEYS Peer Mentors will participate in two or more professional development trainings

Measure 3 Type: Direct

Measure 3 Results: 75% participated in two or more 100% participated in at least one

This Outcome was: Partially Met

Findings 1 out of 3 measures was met

Findings

Findings

Target Level Achievement Partially Met

*If less than Met, program should plan further action to improve performance.

Further Action Planned

What strengths were displayed through the assessments of your measures? Focus session and advising reports were readily available.

What weaknesses were displayed through the assessments of your measures? Peer mentors represent a small portion of our student population.

1. Include additional measures that can capture a larger portion of student population.

2. Change structure of peer mentoring program.

Revise Measurement Approach Planned Changes

Describe Changes Revise measures to capture a larger representation of KEYS students. Continue collaborating with CAB committee to encourage and promote professional development opportunities to students.

Revamp Services Planned Changes

Describe Changes Collaborate with other campus entities to streamline and revamp Peer Mentoring program.

Person/Group responsible for action KEYS Staff

Target Date for implementation of the action 08/13/2018

Priority High

Student will develop an awareness, appreciation, and acceptance for multicultural differences and experiences.

Measure 1: 50% of active participants will participate in a leadership, community service, or cultural enrichment activity

Measure 1 Type: Direct

Measure 1 Results: 31/224 = 14% of active participants participated in a community service activity 33/224 = 15% of active participants participated in a cultural enrichment activity

This Outcome was: Not Met

Findings Measure was not met

Findings

Target Level Achievement Not Met

*If less than Met, program should plan further action to improve performance.

Further Action Planned

What strengths were displayed through the assessments of your measures? Through student activity reports, community service and cultural enrichment data was readily available.

I. Continue collaborating with CAB committee to offer a wider range of applicable activities.

Revamp Services Planned Changes

Describe Changes Continue actively collaborating with CAB committee

Person/Group responsible for action KEYS Staff

Target Date for implementation of the action 08/20/2018

Priority High
Assessment Period(s): AY 2017-2018
Organization Type(s): College, Department, Division, Program, University
Organization(s): Library
Display blank entries: No

AY 2017-2018

Library

Improve access to government documents by participating in Government Printing Office's Catalog Record Distribution Program

Measure 1: New U.S. Government Publishing Office Catalog Record Distribution Program Records were added monthly to the library's online catalog. The goal was to increase the number of these records in the catalog by 10% (from 10,193 to 11,212) by the end of FY 2017-2018.

Measure 1 Type: Direct
This Goal was: Met
Findings We received 1,349 new online government publication records this fiscal year. This increased our overall total by 13% (from 10,193 last year to the current 11,542).
Target Level Achievement Met

What strengths were displayed through the assessments of your measures?
Access to government information has been increased by this year's addition of 1,349 records to our library catalog. These high-quality records have been provided at no cost to our library by the U.S. Government Publishing Office, thus improving the campus community's, and the public's access to government information.

What weaknesses were displayed through the assessments of your measures?
None.

I. It is recommended that the library apply to participate in this very beneficial program, if and when re-enrollment is offered. Participation helps the library fulfill its mission of improving access to government information for the people of its U.S. congressional district. It also supports the college's mission of service to the community.

Collect and Analyze Additional Data and Information

Describe Changes Due to monthly variations in numbers of records provided, and actual total number received, it is recommended that the projected percentage of record increase for next fiscal year be estimated at 11%.

Person/ Group responsible for action Reference Librarian (Coordinator of FDLP Collection)
Target Date for implementation of the action 06/30/2019
Priority Medium

Increase students' awareness of the resources available within the Learning Express Library.
No Data

Issue library cards to as many students, employees, and faculty members as possible.
No Data

Establish a library wide plan to weed the collection significantly.
No Data

Evaluating Accessibility of Library Online Resources
No Data

Increase library circulation in terms of item usage.
No Data
Evaluate and weed the reference collection by June 30, 2018.

Measure 1: The project of evaluating all items in the reference collection was completed, due to the concerted efforts of all of the AWC librarians. The collection's size was reduced this year from 1,654 to 1,124, a reduction of 31%.

Measure 1 Type: Direct
This Goal was: Met
Findings As a result of the librarians' team effort, the reference collection's size was reduced this year from 1,654 to 1,124, a reduction of 31%. The entire reference collection was evaluated by all of the AWC librarians. Outdated materials were weeded. Items that still had value and were likely to be checked out by patrons, were transferred to the circulating collection.

Target Level Achievement Met
What strengths were displayed through the assessments of your measures? The 31% reduction met the overall goal of reducing the footprint of the reference collection. It was hoped enough space would be freed up in the reference area, so that the government documents collection, the media and the periodicals collections, could all be relocated to the area adjacent to the reference collection. This was accomplished, and the move has been completed. The ultimate goal was to free up badly-needed seating and study space for library users.

What weaknesses were displayed through the assessments of your measures? None noted.

Continue Phase II of evaluation and weeding of the Government Documents collection.

Measure 1: Phase II of weeding of the FDLP (Federal Depository Library Program) government documents collection continued during FY 2017-2018, and substantial progress was made.

Measure 1 Type: Direct
This Goal was: Partially Met
Findings Most of the Code of Federal Regulations volumes have now been weeded (approximately 193 weeded). Following FDLP procedures, the remaining 21 volumes will be weeded once they have been held for 1 year (these will be eligible for weeding in July of 2018). The online edition is already available in the Library Catalog and the Government Information Libguide. Some additional outdated items were also weeded, as needed. Weeding of the microfiche collection was not completed, but will be done during FY 2018-2019.

Target Level Achievement Partially Met
*If less than Met, program should plan further action to improve performance.
Further Action Planned
What strengths were displayed through the assessments of your measures? The weeding of 193 volumes of the Code of Federal Regulations, and 45 volumes of the U.S. Statutes at Large, and the many other documents weeded previously, have reduced the footprint of the documents collection substantially. This, along with weeding of the reference collection, has allowed the relocation of the government documents to the area adjacent to the reference desk. The area formerly occupied by the government documents is now available to create badly-needed, additional study and seating space for library users. Access to the Code of Federal Regulations and U.S. Statutes at Large online, is already available, in the Library Catalog and the Government Information Libguide.

I. To complete Phase II of the government documents weeding project, the following steps will be completed during FY 2018-2019: Completion of weeding the Code of Federal Regulations Completion of weeding the microfiche collection Posting weeded items to the FDLP Exchange, to offer them to other Depository libraries, per FDLP procedures.

Other Complete weeding of Code of Federal Regulations and government document microfiche
Describe Changes During FY 2018-2019, the remaining volumes of the Code of Federal Regulations will be weeded as soon as the one-year retention threshold has been reached (per FDLP substitution of online format requirements). In addition, the government documents microfiche collection will be weeded.

Person/Group responsible for action Reference Librarian (Coordinator of Federal Depository Collection)
Target Date for implementation of the action 06/30/2019
Priority Medium
Findings

We found that more students engaged in less structured, individual art projects such as puzzles, rock painting, and collage. As far as social media is concerned, our Instagram account is more active than our Facebook account and this reflects the current shift from Facebook to Instagram.

What weaknesses were displayed through the assessments of your measures?

Our stress-free workshops did not reach our intended audience. The topics may not have been relevant to this college age demographic.

I. Continue offering more art projects that are engaging to students when in the library. Strive to be more active on social media promoting library resources and activities.

Assessing the effect library instruction has on student retention.

Measure 1:

For the purpose of exploring the role of library instruction on student retention, in December of 2016 the library requested data from the Institutional Effectiveness, Research, and Grants Department for the percentage of students who re-enrolled for the successive two semesters after attending a library instruction session, as compared to those students who did not receive library instruction. Years assessed: Three years, 2014-2015, 2015-2016, 2016-2017. Data gathered: 1. Data sources were provided by the library from library instruction sessions on classes that had library instruction: Name of class, such as ENG 101 Professor Name Section # Date of instruction. 2. Data sources were provided by the Institutional Effectiveness, Research, and Grants Department from Colleague as of November 19, 2017. Semesters/Years assessed: Three years, 2014-2015, 2015-2016, 2016-2017. Description of information provided by Institutional Effectiveness: a. Number of Students (N) is unduplicated within but may be duplicated throughout. A student may have enrolled in more than one course in given term but are only counted once in given term. b. Students who were enrolled in at least one course section with library instruction are included in the Library Instruction group. c. Students who enrolled in any course section in subsequent spring term were retained. d. Students who enrolled in any course section in subsequent fall term were retained.

Evidence Attachments:

Copy of 18NOV05-20141 to 20162 Retention Library vs Others.xlsx

This Goal was: Partially Met

Findings

Initial results indicate students who receive library instruction are retained in higher numbers than those who do not.

Target Level Achievement

Met

Further Action Planned

What weaknesses were displayed through the assessments of your measures?

The data does not tell us if a student attends more than one instruction session, so we are unable to measure any added value for attending more than one session.

I. Going forward we would like to compare online vs in person instruction sessions as well as Yuma campus vs other campuses.

Created displays monthly throughout the library on various topic using library materials and artistic elements to attract patrons attention. We tracked the usage each month of the displayed items and the outcome showed 11 additional checkouts of library materials.

No Data
This measure is currently a work in progress. The formerly non-circulating periodicals collection was analyzed for relevancy and weeded accordingly. The next step will be to create catalog records and process each issue for circulation. Statistics will be collected after the periodical collection goes into circulation.

No Data

The Flipster usage from July 2016-June 2017 was 2086. The print non-circulating periodical collection usage was 566. The usage showed our patrons preferred the online periodicals over the print collection. We will continue to monitor the usage.

No Data

Analyzing the usage, adding the online booking software increased study room usage by 1321. Room bookings for July 2015-June 2016 was 4847 and from July 2016 to June 2017 was 6168.

No Data
Assessment Period(s): AY 2017-2018

Organization Type(s): College, Department, Division, Program, University

Organization(s): Student Government

Display blank entries: No

AWC

AY 2017-2018

Student Government
Empower Students to Complete a Successful Proposal for Student Seating

Measure 1:
Help students by providing them with the direction to successfully put in a proposal for student seating and successfully get money to add student seating on campus. Student seating on campus is important as it enhances the students ability to stay on campus and feel a sense of belonging.

Measure 1 Type: Direct
Measure 1 Results: Students received $20,000 (plus 17,000) to add student seating on campus.

This Goal was: Met

Findings
Information went out that money was to be made available to student improvement projects on campus. When Student Government was approached they believed that an improvement could be made on campus by adding additional areas for students to sit. SGA sat down and wrote a group proposal. We collected everyone’s ideas and compiled it into one proposal. From there we determined the direction of the video that we had to submit for the proposal.

Target Level Achievement
Met

Overall Summary of Findings

Yuma Campus Indoor/Outdoor Seating Proposal Committee:
Shara Roberts (Staff) Anthony Vasquez (Student) Armando Fuentes (Student) Bladimir Mendez (Student) Carlos Mendoza (Student) Chase Wiles (Student) Dylan Ramirez (Student) Eryk Marquez (Student) Frank Mayurna (Student) Gabriel Leanch (Student) Galicia Canales (Student) Jennifer Bynum (Student) Jose E. Martin Feind (Student) Makaylla Reveles (Student) Marcos Tagaban (Student) Selena Avila (Student) Solomon Jones (Student) Stephanie Martin (Student) Yesenia Gonzalez (Student) Janine Lopez (Student) Nancy Gomez (Student) Erika Mercado (Student) Sergio Fletes (Student) Hector Urena (Student) Talia Baca (Staff) Angelica Salazar (Student) Bianca Reyes (Student) Esteban Canales (Student) Gabe Leandro (Student) Daniel Ramirez (Staff)
The “Ask”: Create several indoor/outdoor pockets of space that have a variety of modern, movable furniture. Spaces would include charging stations and would be located all around campus. The space is already available, just waiting for cool campus seating! Amount: Well-placed furniture around campus will encourage students to spend more time on campus which will increase their engagement and improve student retention! If students take advantage of these spaces they will have the opportunity to communicate more in group discussions with one another and potentially campus staff and faculty. These multipurpose spaces will allow students the opportunity to integrate services where tools, support personnel, and peer interaction will be brought together to serve their needs. Additionally students may take advantage of these “learning pockets” to gather personal thoughts, study in quite, or rest in between classes. Whatever the reason the student takes advantage of the new student seating it is clear to us as we hope it is to you that these spaces will generate a feeling of a college campus culture to satisfaction. Goals of Yuma Campus Indoor/Outdoor Seating.Share the responsibility for a student’s intellectual, social, cultural, and ethical development among staff, faculty and students. Connect formal classroom learning and learning that takes place outside the classroom for all students Increase students’ retention, academic achievement, and participation in the campus community. Promote the personal growth and development of students through greater contact with faculty members, one another, and other college resources. Provide faculty with a better understanding of student life and opportunities to interact with students outside the classroom within an informal educational spaces.

What strengths were displayed through the assessments of your measures?
When we received the funding for the proposal we realized we would need to narrow down what space was best to outfit for new furniture. We accomplished this but conducting a student survey asking students where they would hang out if given the appropriate resources. It was determined that the LR Atrium was most ideal and so our survey was successful in finding a spot that met student needs.

What weaknesses were displayed through the assessments of your measures?
In hindsight I would have encouraged the SGA students to conduct the student body survey before we wrote the proposal and not following our receiving the funds. We did broad college research before the proposal and we should have done more AWC related research and assessed current student wants earlier on in the project.

Additional Comments:
An article done on the fund projects. Yuma, AZ (February 27, 2018) – An Art Garden on Yuma Campus. A Student Engagement Fund in Parker. A South County Mentoring program. A Business Incubator. The 2018 Innovation Fund projects may be varied and on a strict budget, but the twelve students that competed and won the opportunity to design their “dream project” are already working hard. The $185,000 Innovation Fund, requested by AWC President Daniel Corr, and approved by the District Governing Board last May, is based on Dr. Corr’s frequent assertion that “good ideas come from everywhere.” It was developed to bridge the funding gap between the January 2018 completion of the new AWC Strategic Plan and the fiscal year 2019 AWC Budget, which starts in July 2018. Twenty-three teams submitted a brief proposal, explaining both how their idea tied to the strategic planning process and how it would serve students, along with a short “elevator pitch” video. A screening committee of college employees, led by Dr. Corr, selected the final projects. The selected projects are:

- AWC Welcome Center – $40,000, Mandy Heil. San Luis Home Away from Home – $35,000, Susanna Zambrano. KAWC Border Radio Project – $27,500, Dave Riek. Business Incubator Project – $22,500, Shahrozroo Rohparvar, Karyn Van Why, Marc LFond, Randy Nelson and Moses Diaz De Leon. Student Seating & Charging Stations – $20,000, Student Government Association led by Daniel Ramirez. American Indian Student Recruitment – $8,500, Michelle Y. Thomas. Writing @ AWC – $7,500, Jennifer Hewerdine. Art Garden Beautification Project – $6,300. Dr. Eric Lee, Brad Pease, Martha Martinez. South County Ambassador Program – $6,000, Omar Heredia. Parker Student Engagement Fund – $5,000, Kathy Ocampo. Mobile Mini-Makerspace – $4,600, Angie Creel and Wendy Hoog. South County Mentoring Program – $1,000, Maria Guzman. “We saw an opportunity in the front lobby of our largest building on campus to create a bright and welcoming starting point for prospective students and visitors,” said Mandy Heil, Associate Director of Admissions, who was awarded $40,000 to create a Student Welcome Center in the southwest lobby of the College Community Center, located near the 24th street entrance. “I’m very excited for the chance to bring this idea to life and make it an attractive and functional space.”

We realized through the process that the LR atrium would actually have to be renovated and would cost us an additional $17,000 dollars. If given the chance to do it again we would have chosen specific spaces to recommend to students and those spaces we would have researched more thoroughly before asking for such broad feedback. To view results of survey please see here https://www.surveymonkey.com/results/SM-RD633FJQL/

Describe Changes
No changes needed as this was a one time proposal

Person/Group responsible for action
Student Government Association

Target Date for implementation of the action
07/23/2018

Priority
High

Students will gain the opportunity to voice student needs while being encouraged to participate in college planning

No Data
Assessment Period(s): AY 2017-2018
Organization Type(s): College, Department, Division, Program, University
Organization(s): Student Success Center
Display blank entries: No

AWC

AY 2017-2018

Student Success Center

Students who participate in Student Success Center services will demonstrate the ability to persist, successfully complete coursework and graduate
No Data
### Students will pass their tutored math or English course at a higher rate than non-tutored students

**Measure 1:** Students who receive Student Success Center tutoring will pass their tutored course at a rate that is statistically significant over their peers who do not receive tutoring for the same course in 60% of tutored math courses.

**Measure 1 Type:** Indirect

**Measure 1 Results:** Students who attended tutoring sessions at the Yuma Math Center passed their courses at a 13% higher rate than those who did not visit the Math Center. Students who visited the San Luis Center for math tutoring passed their courses at a rate of 15% higher over those students who did not receive SSC tutoring.

**Measure 2:** Students who receive Student Success Center tutoring will pass their tutored course at a rate that is statistically significant over their peers who do not receive tutoring for the same course in 60% of tutored English courses.

**Measure 2 Type:** Indirect

**Measure 2 Results:** Students who attended tutoring sessions at the Yuma Writing Center passed their courses at a 13% higher rate than those who did not visit the Writing Center. Students who visited the San Luis Center for English tutoring passed their courses at a rate of 18% higher over those students who did not receive SSC tutoring in San Luis.

**Evidence Attachments:**
- Copy of 18SEP01-2014 to 20162 MAT ENG Enrollment SSC.xlsxMathCenter2018Report.xlsxSan Luis Center ENG Report.xlsxSanLuisMath2018Report.xlsxWritingCenter2018Report.xlsx
- Copy of 18SEP01-20141 to 20162 MAT ENG Enrollment  SSC.xlsxMathCenter2018Report.xlsxSan Luis Center ENG Report.xlsxSanLuisMath2018Report.xlsxWritingCenter2018Report.xlsx

**This Goal was:** Met

**Findings**
- Sign in information from the Student Success Center's student log-in database for Yuma and San Luis was provided to the Office of Institutional Effectiveness, Research, and Grants for comparison of success rates for English and math courses. Further analysis was conducted to determine if statistical significance existed in the success rates of students who visited the SSC versus those who didn't. Results show for both Yuma and San Luis locations and for both English and math, students who receive tutoring services pass their courses at a statistically significant higher rate than those who do not receive tutoring services. This pattern is repeated consistently when examining data over a three-year period (Fall 2014–Spring 2017). Interestingly, for the Math Center it appears that success can stem from as little as one to five visits, with the most success being experienced on average for students who visit 21-25 times. Students in this range of visits experienced 82%-100% success rates in both Yuma and San Luis. The Writing Center data for both Yuma and San Luis is similar to the above, with success rates of 72%-100% for students in the 21-25 visit range.

**Target Level Achievement**

**Overall Summary of Findings** (Optional entry: fill out after entering the results for the last outcome/goal being assessed if you would like to provide an overall summary of your findings for the course/program/department being assessed.)
- Results show for both Yuma and San Luis locations and for both English and math, students who receive tutoring services pass their courses at a statistically significant higher rate than those who do not receive tutoring services.

**What strengths were displayed through the assessments of your measures?**
- As hoped, SSC tutoring services appear to increase the likelihood of success for students who take advantage of such resources. Additional statistical tests performed to verify results. Able to capture and analyze data from San Luis now with improved technology.

**What weaknesses were displayed through the assessments of your measures?**
- Data were grouped by number of visits, so students who visited even one time are together with those who visited 5 times. It is difficult to assess that one visit made a significant impact on a student. In addition, we assumed that the highest success rate would be for students who were grouped into visits of 31 or more times, but this was not the case. Data provided by IERG was not separated out by individual courses; therefore, we only know the overall success rates for all ENG or math courses. In addition, there are many factors that contribute to a student's success, and as such we can only suggest a correlation to our services and increased likelihood of success rather than causation.

1. It is recommended we do gather further information from IERG regarding individual course detail in order to analyze where further tutoring assistance or engagement of students could be done.

2. It is recommended that these statistics be shared with the campus community and included in marketing materials to promote SSC services.

3. It may be interesting to examine success rates for courses other than math and English.

**Collect and Analyze Additional Data and Information**
- Planned Changes

**Describe Changes**
- Have requested additional individual course success rates from IERG.

**Other**
- Marketing

**Describe Changes**
- Include success rate information in promotional materials distributed to students and faculty.

**Person/Group responsible for action**
- SSC Coordinator/SSC Staff

**Target Date for implementation of the action**
- 08/20/2018

**Priority**
- High

**Students will report a high level of satisfaction with SSC tutorial services in helping them meet their academic goals**

**No Data**

**Increase percentage of student population served by 1% per year**

**No Data**
Develop and implement a peer-led outreach campaign to introduce study resources, services and supports to AWC students

Measure 1:
Peer Mentors will create and present at least three workshops on student relevant topics. 70% of workshop participants will report learning something new as measured on a survey question Likert scale rating of 4 or 5, with 5 being Strongly Agree.

Measure 1 Type: Direct
Measure 1 Results: Peer Mentors created presentations and/or handouts on Time Management Basics, Test-Taking Strategies, and Student Classroom Etiquette/Successful Student Behaviors. A total of 11 students participated in a Test-Taking workshop. 4 students responded Agree and 4 students responded Strongly Agree to a survey question of “I learned something new at this activity.” (73%) A total of 35 students participated in a Time Management workshop. 16 students responded Agree and 8 students responded Strongly Agree to a survey question of “I learned something new at this activity.” (60%) A total of 35 students participated in a Time Management workshop. 11 students responded Agree and 15 students responded Strongly Agree to a survey question of “I learned something new at this activity.” (74%)

Measure 2:
Peer mentors will host at least three outreach events to provide information and resources to a total of 100 students.

Measure 2 Type: Direct
Measure 2 Results: A total of 8 outreach events were held in which peer mentors provided academic tips and strategies and/or information regarding general college resources. September 13th-Academic Resource Fair in Yuma January 31st-Academic Resource Fair in Yuma February 13-Academic Resource Fair in San Luis March 26th-University Application Workshop March 27th-Meet the Mentors Event April 11th-Resource Boost Table April 19th-Resource Boost Table April 25th-Resource Boost Table

Evidence Attachments:
Event Flyers.zipGroup Presentations & Feedback.zipHelpful Handouts.zipStudent Attendance and Feedback.zip

This Goal was:
Met

Findings
With additional funding from the PACTO grant program, 7 peer mentors were recruited and hired by the Student Success Center to perform outreach and support to AWC students in a variety of ways. Workshop topics were identified by CAMP and KEYS staff as topics relevant for first generation, first-year high risk student populations, and presentations were held by the peer mentors specifically for the CAMP and KEYS students. In addition, 2 mentors worked specifically within Transfer Services to conduct outreach and assist students with the transfer process. Two other mentors worked specifically with Advisement Services in San Luis, while the remaining mentors worked within the SSC Yuma Writing Center and Military/Veteran Student Lounge to provide general tutoring and mentoring support to students. Events were all well-received. The test-taking workshop appeared to have the lowest satisfaction rating, but it is right at the mark. All presentations had different presenters. Per verbal comments from the peer mentors, the resource fair events were better attended before Spring Break happened. Although sign-in sheets and/or feedback was not collected at all events, data from at least two of the events does document 48 students, and between the KEYS and CAMP populations that is at least another 50 students. In addition, each mentor kept a log of individual students they met with; these logs are available as part of the time and effort reports in the PACTO office. It is safe to say that the minimum goal of reaching 100 students was accomplished.

Target Level Achievement
Met

What strengths were displayed through the assessments of your measures?
Students seemed to appreciate that we brought information out to them. Many expressed they did not know of a particular strategy, or that it was very helpful to have someone walk them through filling out a university application. They also liked that the presentations were from other students like themselves. A variety of backgrounds and skill sets allowed the mentors to use their own strengths to create presentations and work with students effectively.

What weaknesses were displayed through the assessments of your measures?
Due to varying student peer mentor schedules, it was difficult to choose dates and times that were convenient for everyone for events and meetings. At some events that were heavily attended, it was difficult for the mentors to talk to multiple students at the same time and even more difficult for them to remember to have students sign in and complete the feedback survey. Not all students visited every resource table and therefore the passport stamp cards we received for the raffle are not a true indication of the total number of students. Therefore, it is impossible to know exactly how many students we actually reached. While some students signed up for mentoring at the time of the event, they were less interested in following through with ongoing regular meetings with a peer mentor. This was disappointing for mentors who were seeking to establish an ongoing mentoring relationship.

1. For future events, attempt to have students sign in as they first approach for information to help with data collection. Collect the feedback survey at the same time as the raffle passport to help with data collection.
2. Ensure staffing is adequate at events to provide the best customer service/personal attention to students.
3. Continue to provide similar activities and collaborate with other departments on campus to identify outreach needs and improve events.

Change Methods of Data Collection
Planned Changes

Describe Changes
As mentioned in the recommendations, devise plan to capture sign in and feedback data at events.

Revamp Services
Planned Changes

Describe Changes
Continued/improved collaboration with other departments to improve peer mentoring services on campus. Conversations currently underway to coordinate mentor training efforts and support similar events as occurred this semester.

Person/ Group responsible for action
SSC Coordinator/SSC mentor staff

Target Date for implementation of the action
08/01/2018

Priority
Medium
ACC 100 Assessment Plan Data

Course Outcome

Analyze and categorize (journals) economic activity.

AY 2017-2018

MEASURE 1:

A summative measure was implemented by giving homework assignments to students with problems in the area of analyzing and categorizing economic events using the accounting equation.

MEASURE 1 TYPE: Direct

MEASURE 1 RESULTS:

<table>
<thead>
<tr>
<th>Grade Range</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 - 90</td>
<td>79</td>
</tr>
<tr>
<td>89-80</td>
<td>4</td>
</tr>
<tr>
<td>&lt; 80</td>
<td>6</td>
</tr>
</tbody>
</table>

MEASURE 2:

A summative measure was implemented by giving a test to students with problems in the area of analyzing and categorizing economic events using the accounting equation.

MEASURE 2 TYPE: Direct

MEASURE 2 RESULTS:

<table>
<thead>
<tr>
<th>Grade Range</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 - 90</td>
<td>34</td>
</tr>
<tr>
<td>89-80</td>
<td>5</td>
</tr>
<tr>
<td>&lt; 80</td>
<td>20</td>
</tr>
</tbody>
</table>

MEASURE 3 TYPE: Direct

FINDINGS

The benchmark for the homework assignments were set at 90% because the students had the accounting information available to them when conducting this assignment. Additionally, the students had access to “help me solve the problem” and “show me an example” in Pearson. These aids provided an edge for students in completing the homework assignments with accuracy. Additionally, the homework was set at unlimited attempts. This gave students an unlimited amount of tries to get 100%. Only 11.2% of the class throughout the two semesters (Fall 2017- Spring 2018) fell below this benchmark. This is due to sheer laziness by the students that did not bother redoing the homework assignments.
The students were told to complete the reading before each class. The student was introduced to this material three different ways. A full demonstration on how to complete this outcome was conducted during lecture. Also, the students had full access to the PowerPoints before, during, and after class. The students had to complete in-class exercises that comprised analyzing and categorizing economic transactions through the accounting equation and journals entries to receive participation points. The homework assignments had related exercises that focused on analyzing and categorizing economic transactions. The student was told that on the test that this outcome would be covered as per the homework. I set my benchmark at 80%, which I thought was very reasonable considering some students are not test takers. The results indicated that 58% of students achieved my benchmark. The remainder was that 42% of the students fell below my benchmark.

**TARGET LEVEL ACHIEVEMENT**

| Not Met |

**“IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.”**

| Further Action Planned |

**OVERALL SUMMARY OF FINDINGS**

| N/A |

*(OPTIONAL ENTRY: FILL OUT AFTER ENTERING THE RESULTS FOR THE LAST OUTCOME/GOAL BEING ASSESSED IF YOU WOULD LIKE TO PROVIDE AN OVERALL SUMMARY OF YOUR FINDINGS FOR THE COURSE/PROGRAM/DEPARTMENT BEING ASSESSED.)*

**WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

- There were ample methods implemented to assist the student in learning the material both in my formative and summative assessments.

**WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

- None

1. Taking tests seems to be an issue with many students. I will need to try motivating the students to spend time at home to review and focus on the exercises that will be on the test. It seems that students do not really know how to study for tests.

**OTHER**

- Spend a little more time in review of the upcoming test.

**DESCRIBE CHANGES**

- At the end of the class period before the test, spend a good 15 minutes reviewing the upcoming tests and tell the students where to put their focus. Even though I have been telling them what to review in a matter of minutes, I may need more time.

**PERSON/GROUP RESPONSIBLE FOR ACTION**

- Marc Lafond
TARGET DATE FOR IMPLEMENTATION OF THE ACTION

09/03/2018

PRIORITY

Medium

Course Outcome

Complete a bank reconciliation for a cash account.

AY 2017-2018

MEASURE 1:

A summative measure was implemented by giving homework assignments to students with problems in the area of completing a bank reconciliation for a cash account.

MEASURE 1 TYPE:

Direct

MEASURE 1 RESULTS:

C1 HW Students
100-90 75
89-80 3
<80 6

MEASURE 2:

A summative measure was implemented by giving a test to students with problems in the area of completing a bank reconciliation for a cash account.

MEASURE 2 TYPE:

Direct

MEASURE 2 RESULTS:

C1 T Students
100-90 20
89-80 12
<80 24

FINDINGS

The benchmark for the homework assignments were set at 90% because the students had the accounting information available to them when conducting this assignment. Additionally, the students had access to "help me solve the problem" and "show me an example" in Pearson. These aids provided an edge for students in completing the homework assignments with accuracy. Additionally, the homework was set at unlimited attempts. This gave students an unlimited amount of tries to get 100%. The percentages of students that achieved the benchmark was 89% Only 11% of the class throughout the two semesters (Fall 2017- Spring 2018) fell below this benchmark. This is due to sheer laziness by the students that did not bother redoing the homework assignments.

The students were told to complete the reading before each class. The student was introduced to this material three different ways. A full demonstration on how to complete this outcome was conducted during lecture. Also, the students had full access to the PowerPoints before, during, and after class. The students had to complete in-class exercises that comprised completing a bank reconciliation for a cash account to receive participation points. The homework assignments had related exercises that focused on completing a bank reconciliation for a cash account. The student was told that on the test that this outcome would be covered as per the homework. I set my benchmark at 80%, which I thought was very reasonable considering some students are not test takers. The results indicated that 57% of students achieved my benchmark. The remainder was that 33% of the students fell...
TARGET LEVEL ACHIEVEMENT

Partially Met

OVERALL SUMMARY OF FINDINGS

N/A

(OPTIONAL ENTRY: FILL OUT AFTER ENTERING THE RESULTS FOR THE LAST OUTCOME/GOAL BEING ASSESSED IF YOU WOULD LIKE TO PROVIDE AN OVERALL SUMMARY OF YOUR FINDINGS FOR THE COURSE/PROGRAM /DEPARTMENT BEING ASSESSED.)

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

There were ample methods implemented to assist the student in learning the material both in my formative and summative assessments.

1. Taking tests seems to be an issue with many students. I will need to try motivating the students to spend time at home to review and focus on the exercises that will be on the test. It seems that students do not really know how to study for tests.

OTHER

Spend a little more time in review of the upcoming test.

DESCRIBE CHANGES

At the end of the class period before the test, spend a good 15 minutes reviewing the upcoming tests and tell the students where to put their focus. Even though I have been telling them what to review in a matter of minutes, I may need more time.

PERSON/GROUP RESPONSIBLE FOR ACTION

Marc Lafond

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

09/03/2018

PRIORITY

High

Course Outcome

Process payroll transactions in accordance to state and federal regulations.

AY 2017-2018

MEASURE 1:

A summative measure was implemented by giving homework assignments for two chapters 7 & 8 to students with exercises in the area of processing payroll transactions in accordance to state and federal regulations. Each student had two
homework assignments to complete this assessment. Therefore, this measure is doubled.

MEASURE 1 TYPE: Direct
MEASURE 1 RESULTS: C1 HW Students
100-90 126
89-80 15
<80 34

MEASURE 2: A summative measure was implemented by giving a test to students with exercises in the area of processing payroll transactions in accordance to state and federal regulations.
MEASURE 2 TYPE: Direct
MEASURE 2 RESULTS: C1 T Students
100-90 5
89-80 4
<80 41

FINDINGS
The benchmark for the homework assignments were set at 90% because the students had the accounting information available to them when conducting this assignment. Additionally, the students had access to “help me solve the problem” and “show me an example” in Pearson. These aids provided an edge for students in completing the homework assignments with accuracy. Additionally, the homework was set at unlimited attempts. This gave students an unlimited amount of tries to get 100%. There were 72% of students that achieved better grades than the benchmark. There were 28% of the students throughout the two semesters (Fall 2017- Spring 2018) fell below this benchmark.

The students were told to complete the reading before each class. The student was introduced to this material three different ways. A full demonstration on how to complete this outcome was conducted during lecture. Also, the students had full access to the PowerPoints before, during, and after class. The students had to complete in-class exercises that comprised processing payroll transactions in accordance to state and federal regulations to receive participation points. The homework assignments had related exercises that focused on processing payroll transactions in accordance to state and federal regulations. The student was told that on the test that this outcome would be covered as per the homework. I set my benchmark at 80%, which I thought was very reasonable considering some students are not test takers. The results indicated that most students did not achieve my benchmark.

TARGET LEVEL ACHIEVEMENT
Partially Met

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

There were ample methods implemented to assist the student in learning the material both in my formative and summative assessments.

1. there was a complaint that the students did not have adequate time to complete a
portion of the test. This was my fault in not giving them adequate time.

<table>
<thead>
<tr>
<th>OTHER</th>
<th>Allow more time for the exercises during the test.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESCRIBE CHANGES</td>
<td>Allow 30 more minutes to allow students adequate time to complete this section.</td>
</tr>
<tr>
<td>PERSON/GROUP RESPONSIBLE FOR ACTION</td>
<td>Marc LAfond</td>
</tr>
<tr>
<td>TARGET DATE FOR IMPLEMENTATION OF THE ACTION</td>
<td>08/13/2018</td>
</tr>
<tr>
<td>PRIORITY</td>
<td>High</td>
</tr>
</tbody>
</table>
ACC 211 Assessment Plan Data

Course Outcome: Complete merchandise transactions using periodic or perpetual inventory models.

AY 2017-2018

MEASURE 1:
The first measure assesses student understanding of perpetual merchandise inventory transactions. The transactions include understanding purchases, sales, fob shipping point and destination, returns and allowances as well as discounts.

The assessment for this measure is E5-20, P5-34A, and Comp 2.

AG: 71.43% 84.57% 81.86% 98.29% 84.04% 7 4.9 4
CIS: 100.00% 75.00% 71.00% 72.75% 79.69% 4 2.8 1
ABUS: 80.00% 80.00% 75.55% 82.60% 79.54% 20 15 13
Accounting: 100.00% 95.00% 72.50% 50.00% 79.38% 6 4.8 5

MEASURE 2:
The second measure assesses student understanding of periodic merchandise inventory transactions. The transactions include understanding purchases, sales, fob shipping point and destination, returns and allowances as well as discounts.

The assessment for this measure is P5b-39a.

AG: 85.71% 71.43% 81.86% 79.67% 7 4.9 6
CIS: 100.00% 96.00% 96.67% 7 4.9 6
ABUS: 80.00% 63.10% 75.55% 72.88% 20 15 12
Accounting: 100.00% 96.00% 96.67% 7 4.9 6

MEASURE 3:
The third measure assesses student ability to complete adjusting and closing entries for a periodic merchandise business.

The assessment for this measure is S5-9, P5-36A, Comp 2 and Comp 3.

AG: 71.43% 84.57% 81.86% 98.29% 84.04% 7 4.9 4
CIS: 100.00% 75.00% 71.00% 72.75% 79.69% 4 2.8 1
ABUS: 80.00% 80.00% 75.55% 82.60% 79.54% 20 15 13
Accounting: 100.00% 95.00% 72.50% 50.00% 79.38% 6 4.8 5

MEASURE 1 RESULTS:

Measure 1 E5-20 P5-34A Comp 2 Average # of Students # Goal # Met
Acc 100.00% 96.00% 72.50% 100.00% 8 6 6
AG 85.71% 71.43% 81.86% 96.67% 7 4.9 6
CIS 100.00% 96.00% 96.67% 100.00% 3 1.6 2
ABUS 80.00% 63.10% 75.55% 72.88% 20 15 12
Accounting 100.00% 96.00% 96.67% 100.00% 6 4 2

MEASURE 2 RESULTS:

Measure 2 P5b-39a # of # Goal # Met
Acc 100.00% 71.43% 81.86% 79.67% 7 4.9 6
AG 85.71% 71.43% 81.86% 79.67% 7 4.9 6
CIS 100.00% 96.00% 96.67% 93.33% 4 2.8 1
ABUS 80.00% 63.10% 75.55% 72.88% 20 15 12
Accounting 100.00% 96.00% 96.67% 93.33% 6 4 2

MEASURE 3 RESULTS:

Measure 3 S5-9 P5-36a Comp 2 Comp 3 Average # of Students # Goal # Met
Acc 100.00% 96.00% 72.50% 100.00% 8 6 6
AG 85.71% 71.43% 81.86% 96.67% 7 4.9 6
CIS 100.00% 96.00% 96.67% 100.00% 3 1.6 2
ABUS 80.00% 63.10% 75.55% 72.88% 20 15 12
Accounting 100.00% 96.00% 96.67% 100.00% 6 4 2

Evidence:

Students performed better by approximately 10%.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Average</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>81.65%</td>
<td>96.71%</td>
</tr>
<tr>
<td>Male</td>
<td>72.37%</td>
<td>84.79%</td>
</tr>
</tbody>
</table>

Students over 30 years of age out performed younger students by almost 20%.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Average</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-20</td>
<td>76.75%</td>
<td>94.93%</td>
</tr>
<tr>
<td>21-30</td>
<td>74.81%</td>
<td>98.71%</td>
</tr>
<tr>
<td>31-40</td>
<td>94.40%</td>
<td>98.71%</td>
</tr>
<tr>
<td>41-50</td>
<td>94.13%</td>
<td>98.71%</td>
</tr>
<tr>
<td>50+</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

Students outperformed females by approximately 10%.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Average</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>85.71%</td>
<td>98.57%</td>
</tr>
<tr>
<td>Male</td>
<td>71.43%</td>
<td>98.57%</td>
</tr>
</tbody>
</table>

About 50% of accounting students achieved a 75% or better.

<table>
<thead>
<tr>
<th>Program</th>
<th>Average</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG</td>
<td>85.71%</td>
<td>71.43%</td>
</tr>
<tr>
<td>CIS</td>
<td>100.00%</td>
<td>75.00%</td>
</tr>
<tr>
<td>ABUS</td>
<td>80.00%</td>
<td>80.00%</td>
</tr>
<tr>
<td>Accounting</td>
<td>100.00%</td>
<td>95.00%</td>
</tr>
</tbody>
</table>

The success is as follows based on degree/certificate programs:

- AG: 70% of Agriculture students will achieve a 75% or better.
- CIS: 70% of business students will achieve a 75% or better.
- ABUS/Business: 75% of business students will achieve a 75% or better.
- Accounting: 80% of accounting students will achieve a 75% or better.

The assessment for this measure is E5-20, P5-34A, and Comp 2.

MEASURE TYPE: Direct

MEASURE TYPE: Direct

MEASURE TYPE: Direct

The success is as follows based on degree/certificate programs:

- AG: 70% of Agriculture students will achieve a 75% or better.
- CIS: 70% of business students will achieve a 75% or better.
- ABUS/Business: 75% of business students will achieve a 75% or better.
- Accounting: 80% of accounting students will achieve a 75% or better.

The success is as follows based on degree/certificate programs:

- AG: 70% of Agriculture students will achieve a 75% or better.
- CIS: 70% of business students will achieve a 75% or better.
- ABUS/Business: 75% of business students will achieve a 75% or better.
- Accounting: 80% of accounting students will achieve a 75% or better.

The success is as follows based on degree/certificate programs:

- AG: 70% of Agriculture students will achieve a 75% or better.
- CIS: 70% of business students will achieve a 75% or better.
- ABUS/Business: 75% of business students will achieve a 75% or better.
- Accounting: 80% of accounting students will achieve a 75% or better.

The success is as follows based on degree/certificate programs:

- AG: 70% of Agriculture students will achieve a 75% or better.
- CIS: 70% of business students will achieve a 75% or better.
- ABUS/Business: 75% of business students will achieve a 75% or better.
- Accounting: 80% of accounting students will achieve a 75% or better.
OUTCOMES/GOAL
Evaluate if you would like to provide an overall summary of your course/program/student performance:

MEASURES/GOALS

NAT SYMPTOMS
Same clinical through measures.

Howlett

Below the measures.

MEASURES/GOALS

NAT SYMPTOMS
Same symptoms through measures.

Howlett

In the overall summary of your course/program/student performance:

MEASURES/GOALS

NAT SYMPTOMS
Same symptoms through measures.

Howlett

As a measure of your measures.

MEASURES/GOALS

NAT SYMPTOMS
Same symptoms through measures.

Howlett

As a measure of your measures.

MEASURES/GOALS

NAT SYMPTOMS
Same symptoms through measures.

Howlett

As a measure of your measures.

MEASURES/GOALS

NAT SYMPTOMS
Same symptoms through measures.

Howlett

As a measure of your measures.

MEASURES/GOALS

NAT SYMPTOMS
Same symptoms through measures.

Howlett

As a measure of your measures.

MEASURES/GOALS

NAT SYMPTOMS
Same symptoms through measures.

Howlett

As a measure of your measures.

MEASURES/GOALS

NAT SYMPTOMS
Same symptoms through measures.

Howlett

As a measure of your measures.

MEASURES/GOALS

NAT SYMPTOMS
Same symptoms through measures.

Howlett

As a measure of your measures.

MEASURES/GOALS

NAT SYMPTOMS
Same symptoms through measures.

Howlett

As a measure of your measures.
MEASURE 5:
The fifth measure assesses student understanding of adjusting entries complying with GAAP. I am looking for understanding of applying GAAP principles ensuring all revenue and expenses are accounted for in the correct period.

WHAT STRENGTHS WERE NOTED?
I also analyzed the completion rate with surprising results in some areas.

MISSTAKES AND OPPORTUNITIES FOR INCREASE:
Other degrees/certificates: 70% of other students will achieve a 75% or better.
AG: 70% of Agriculture students will achieve a 75% or better.
CIS: 70% of business students will achieve a 75% or better.
Accounting: 80% of accounting students will achieve a 75% or better.

This data was collected by each measure and is represented in separate tables.

2. Include additional instructors.

3. Change methods of obtaining assessment data.

COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION

Planned Changes

PERIOD RESPONSIBLE FOR PERFORMING THE ACTION

TARGET DATE FOR COMPLETION OF THE ACTION

09/30/2016

PRIORITY

High

RECOMMEND ADDITIONAL RESOURCES NEEDED (AND RESOURCES ARE HELPFUL)

MEASURE 1:

Evaluate the effectiveness of the economic activity surrounding fixed assets.

3. Include additional instructors.

OTHER MEASURES?

ADDITIONAL COMMENTS:

In the words of Khan....You task me Elaine, you task me.

MEASURE 2 RESULTS:

MEASURE 2 TYPE:

Direct

The second measure assesses student understanding of the economic activity surrounding natural resources.

COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION

Planned Changes

PERIOD RESPONSIBLE FOR PERFORMING THE ACTION

TARGET DATE FOR COMPLETION OF THE ACTION

09/30/2016

PRIORITY

High

RECOMMEND ADDITIONAL RESOURCES NEEDED (AND RESOURCES ARE HELPFUL)

MEASURE 3:

Evaluate the effectiveness of the economic activity surrounding natural resources.

3. Include additional instructors.

OTHER MEASURES?

ADDITIONAL COMMENTS:

In the words of Khan....You task me Elaine, you task me.

MEASURE 2 TYPE:

Direct

The second measure assesses student understanding of the economic activity surrounding natural resources.

COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION

Planned Changes

PERIOD RESPONSIBLE FOR PERFORMING THE ACTION

TARGET DATE FOR COMPLETION OF THE ACTION

09/30/2016

PRIORITY

High

RECOMMEND ADDITIONAL RESOURCES NEEDED (AND RESOURCES ARE HELPFUL)

MEASURE 3:

Evaluate the effectiveness of the economic activity surrounding natural resources.

3. Include additional instructors.

OTHER MEASURES?

ADDITIONAL COMMENTS:

In the words of Khan....You task me Elaine, you task me.

MEASURE 2 TYPE:

Direct

The second measure assesses student understanding of the economic activity surrounding natural resources.

COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION

Planned Changes

PERIOD RESPONSIBLE FOR PERFORMING THE ACTION

TARGET DATE FOR COMPLETION OF THE ACTION

09/30/2016

PRIORITY

High

RECOMMEND ADDITIONAL RESOURCES NEEDED (AND RESOURCES ARE HELPFUL)

MEASURE 3:

Evaluate the effectiveness of the economic activity surrounding natural resources.

3. Include additional instructors.

OTHER MEASURES?

ADDITIONAL COMMENTS:

In the words of Khan....You task me Elaine, you task me.
FINDINGS

**All data can be found with TK20 ACC 211 Obj 3 File.xls**

Data shows males are outperforming females.

<table>
<thead>
<tr>
<th>Average</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>61.83%</td>
</tr>
<tr>
<td>Male</td>
<td>70.52%</td>
</tr>
</tbody>
</table>

Data reveals that 21 year olds and above performing at relatively same level.

<table>
<thead>
<tr>
<th>Age</th>
<th>Average</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-20</td>
<td>60.19%</td>
<td>71.94%</td>
</tr>
<tr>
<td>21-30</td>
<td>78.95%</td>
<td>80.06%</td>
</tr>
<tr>
<td>31-40</td>
<td>71.38%</td>
<td>87.89%</td>
</tr>
<tr>
<td>41-50</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>50+</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

Ag Students are outperforming my expectations.

<table>
<thead>
<tr>
<th>Measure 1</th>
<th>E9-18</th>
<th>P9-30A</th>
<th>P9-32A</th>
<th>QC9A</th>
<th>Comp 2</th>
<th>Comp 3</th>
<th>Average</th>
<th># of Students</th>
<th># Goal</th>
<th># Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>67.00%</td>
<td>40.00%</td>
<td>84.50%</td>
<td>6</td>
<td>4.8</td>
<td>2</td>
</tr>
<tr>
<td>ABUS</td>
<td>86.11%</td>
<td>83.32%</td>
<td>76.95%</td>
<td>88.16%</td>
<td>75.55%</td>
<td>82.60%</td>
<td>82.11%</td>
<td>20</td>
<td>15</td>
<td>14</td>
</tr>
<tr>
<td>CIS</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>71.00%</td>
<td>72.78%</td>
<td>90.17%</td>
<td>4</td>
<td>2.8</td>
<td>4</td>
</tr>
<tr>
<td>AG</td>
<td>100.00%</td>
<td>82.14%</td>
<td>87.86%</td>
<td>85.71%</td>
<td>81.86%</td>
<td>98.29%</td>
<td>89.31%</td>
<td>7</td>
<td>4.9</td>
<td>5</td>
</tr>
<tr>
<td>Other</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>96.00%</td>
<td>93.00%</td>
<td>98.17%</td>
<td>2</td>
<td>1.4</td>
<td>1</td>
</tr>
</tbody>
</table>

Native American and Asian students outperforming other races.

<table>
<thead>
<tr>
<th>Measure 2</th>
<th>E9-25</th>
<th>Comp 2</th>
<th>Comp 3</th>
<th>Average</th>
<th># of Students</th>
<th># Goal</th>
<th># Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>100.00%</td>
<td>67.00%</td>
<td>84.50%</td>
<td>83.83%</td>
<td>6</td>
<td>4.8</td>
<td>3</td>
</tr>
<tr>
<td>ABUS</td>
<td>81.68%</td>
<td>75.55%</td>
<td>82.11%</td>
<td>79.78%</td>
<td>20</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>CIS</td>
<td>100.00%</td>
<td>71.00%</td>
<td>90.63%</td>
<td>87.21%</td>
<td>4</td>
<td>2.8</td>
<td>2</td>
</tr>
<tr>
<td>AG</td>
<td>80.71%</td>
<td>81.86%</td>
<td>89.31%</td>
<td>83.96%</td>
<td>7</td>
<td>4.9</td>
<td>5</td>
</tr>
<tr>
<td>Other</td>
<td>100.00%</td>
<td>96.00%</td>
<td>98.17%</td>
<td>98.06%</td>
<td>2</td>
<td>1.4</td>
<td>1</td>
</tr>
</tbody>
</table>

As the semester progresses, students in both learning formats have the same results.

<table>
<thead>
<tr>
<th>Measure 3</th>
<th>E9-24</th>
<th>Comp 2</th>
<th>Comp 3</th>
<th>Average</th>
<th># of Students</th>
<th># Goal</th>
<th># Met</th>
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<tbody>
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<td>75.55%</td>
<td>82.11%</td>
<td>81.91%</td>
<td>20</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>CIS</td>
<td>100.00%</td>
<td>71.00%</td>
<td>90.63%</td>
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<tr>
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<td>89.31%</td>
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<td>7</td>
<td>4.9</td>
<td>5</td>
</tr>
<tr>
<td>Other</td>
<td>100.00%</td>
<td>96.00%</td>
<td>98.17%</td>
<td>98.06%</td>
<td>2</td>
<td>1.4</td>
<td>1</td>
</tr>
</tbody>
</table>

Native American and Asian students outperforming other races.

Hispanic and Caucasian students performance difference is negligible.

Asian, Black and Native American Students are a small population.

<table>
<thead>
<tr>
<th>Average</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>82.94%</td>
</tr>
<tr>
<td>Black</td>
<td>55.78%</td>
</tr>
<tr>
<td>Caucasian</td>
<td>66.30%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>66.67%</td>
</tr>
<tr>
<td>Native American</td>
<td>87.78%</td>
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</table>

As the semester progresses, students in both learning formats have the same results.

<table>
<thead>
<tr>
<th>Average</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face to Face</td>
<td>81%</td>
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<tr>
<td>Online</td>
<td>86%</td>
</tr>
</tbody>
</table>

**TARGET LEVEL ACHIEVEMENT**

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.*

Further Action Planned

**OVERALL SUMMARY OF FINDINGS**

(Optional entry: fill out after entering the results for the last outcome/goal being assessed if you would like to provide an overall summary of your findings for the course/program/department being assessed.)

Summary of findings noted in objective 1 are relevant to all measures.

**WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

Analysis used for entire process:

- Multiple measures
- Measures recorded at different times in the semester. (beginning vs. end)
- I picked apart the detail of the assessment vs. giving a broad overview.
- I pushed myself into expanding assessment and that means I am improving at assessment skills.
- I like having the data recorded by different variables. I have data which may indicate a problem in instructor output.
- Converted completion rate to common-size eliminating variable population distortions.

**WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

Analysis used for entire process:

- I am not unhappy with the outcomes, I would like to see them higher.
- What weaknesses were displayed through the assessments of your measures?
- I need to plan better
- I am a last minute person and for assessment this is not good.
- I need to create assessment at the beginning of the year and share with fellow instructors.

2. Include additional instructors.
   - Intro to accounting
   - Intro to tax
   - Other Adjunct
3. Make sure ESL is not an issue in the classroom.
   - Many of my Hispanic and Asian students are ESL. They might have trouble understanding me in the classroom. I need to ensure there are resources available to them.
   - I need to utilize multiple assessment tools to ensure validity of data.
   - I would like to use cell phones and surveys in the classroom. I would like to add some immediate assessment to ensure at the time I am lecturing the students are learning.
   - I know there are ways to utilize cell phones and surveys in the classroom. I would like to add some immediate assessment to ensure at the time I am lecturing the students are learning.
While I loved the extensive comprehensive problem, many students spent weeks on the problem and found the results to be confounding. To better assess student comprehension, I need to find a better comprehensive problem to assess student comprehension. Often times the students did not complete the sections, resulting in lower scores.

REVISED MEASUREMENT
APPROACH

Planned Changes

COLLECT AND ANALYZE
ADDITIONAL DATA AND
INFORMATION

Planned Changes

OTHER

Kristine Duke

DESCRIPTIVE CHANGES

Implement recommendations listed in assessment.

OTHER

Kristine Duke

PERSON/GROUP RESPONSIBLE
FOR ACTION

Kristine Duke

TARGET DATE FOR
IMPLEMENTATION OF THE
ACTION

08/31/2018

PRIORITY

High

DESCRIPTION OF ADDITIONAL RESOURCES NEEDED (LEAVE BLANK IF NO ADDITIONAL RESOURCES ARE NEEDED)

N/A
ART 111 Assessment Plan Data

Course Outcome

Students will consider effective composition within the picture plane.

AY 2017-2018

MEASURE 1:
Students accurately compares height to the width of an object.
MEASURE 1 TYPE:
Direct
MEASURE 2:
Student accurately describes angles.
MEASURE 2 TYPE:
Direct
MEASURE 3:
Student accurately describes axes.
MEASURE 3 TYPE:
Direct
MEASURE 4:
Student uses value to describe an object's shape.
MEASURE 4 TYPE:
Direct
EVIDENCE ATTACHMENTS:

FINDINGS

Student considers composition. 80% of students met objective for the 4 measures.

TARGET LEVEL ACHIEVEMENT

Partially Met

OVERALL SUMMARY OF FINDINGS

Offering the student the best opportunities to acquire seeing skills is an always evolving pursuit and permanent goal to the drawing teacher. It is likely unrealistic to expect a 100% success rate, but it may be possible, with dedication, to raise the success rate above 80%.

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

A remarkable number of students grasped the basic skill explained on which ART 111 is based.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Out of 15 students, 2 were unable to translate 3-dimensional form onto a 2-dimensional picture plane.

1. Continue to teach a variety of seeing techniques.
2. Allow students who are unable to grasp perceptual concepts to freely exercise expressive creativity.
3. Challenge talented students with assignments that demand problem solving.

OTHER

See above.

Course Outcome

Students will demonstrate the ability to render the illusion of 3 dimensional space with 2 dimensional media.

AY 2017-2018

MEASURE 1:
Students accurately compares height to the width of an object.
MEASURE 1 TYPE:
Direct
MEASURE 2:
Student accurately describes angles.
MEASURE 2 TYPE:
Direct
MEASURE 3:
Student accurately describes axes.
MEASURE 3 TYPE:
Direct
MEASURE 4:
Student uses value to describe an object's shape.
MEASURE 4 TYPE: Direct

FINDINGS
Students will demonstrate the ability to render the illusion of 3 dimensional space with 2 dimensional media. 80% of students met objective for the 4 measures.

TARGET LEVEL ACHIEVEMENT
Partially Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

OVERALL SUMMARY OF FINDINGS
Further Action Planned

(OPTIONAL ENTRY: FILL OUT AFTER ENTERING THE RESULTS FOR THE LAST OUTCOME/GOAL BEING ASSESSED IF YOU WOULD LIKE TO PROVIDE AN OVERALL SUMMARY OF YOUR FINDINGS FOR THE COURSE/PROGRAM/DEPARTMENT BEING ASSESSED.)

Offering the student the best opportunities to acquire seeing skills is an always evolving pursuit and permanent goal to the drawing teacher. It is likely unrealistic to expect a 100% success rate, but it may be possible, with dedication, to raise the success rate above 80%.

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
A remarkable number of students grasped the basic skill explained on which ART 111 is based.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Out of 15 students, 2 were unable to translate 3-dimensional form onto a 2-dimensional picture plane.

1. Continue to teach a variety of seeing techniques.
2. Allow students who are unable to grasp perceptual concepts to freely exercise expressive creativity.
3. Challenge talented students with assignments that demand problem solving.

OTHER
See above.

Course Outcome
Students will demonstrate the analytical skills to accurately render 2-dimensional images.

AY 2017-2018

MEASURE 1:
MEASURE 1 TYPE: Direct
MEASURE 2:
MEASURE 2 TYPE: Direct
MEASURE 3:
MEASURE 3 TYPE: Direct
MEASURE 4:
MEASURE 4 TYPE: Direct

FINDINGS
80% of students met objective for the 4 measures.

TARGET LEVEL ACHIEVEMENT
Partially Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

OVERALL SUMMARY OF FINDINGS
Further Action Planned

(OPTIONAL ENTRY: FILL OUT AFTER ENTERING THE RESULTS FOR THE LAST OUTCOME/GOAL BEING ASSESSED IF YOU WOULD LIKE TO PROVIDE AN OVERALL SUMMARY OF YOUR FINDINGS FOR THE COURSE/PROGRAM/DEPARTMENT BEING ASSESSED.)

Offering the student the best opportunities to acquire seeing skills is an always evolving pursuit and permanent goal to the drawing teacher. It is likely unrealistic to expect a 100% success rate, but it may be possible, with dedication, to raise the success rate above 80%.
| WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES? | A remarkable number of students grasped the basic skill explained on which ART 111 is based. |
| WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES? | Out of 15 students, 2 were unable to translate 3-dimensional form onto a 2-dimensional picture plane. |

1. Continue to teach a variety of seeing techniques.
2. Allow students who are unable to grasp perceptual concepts to freely exercise expressive creativity.
3. Challenge talented students with assignments that demand problem solving.

OTHER
See above.
BIO 201 Assessment Plan Data

Course Outcome

Describe the physiology of muscle and muscle groups, sliding-filament model, and the relationship between muscles and the nervous system.

AY 2017-2018

MEASURE 1:

1. At a neuromuscular junction, _______ is to the electrical signals as__________ is to the chemical language.

- Na+, K+ /acetylcholine
- Neurotransmitter/ Ca++
- Ca++/ Na+
- Myosin/ actin
- None of the above are correct

MEASURE 1 TYPE: Direct

MEASURE 1 RESULTS: 66 students questioned. 27 answered question correctly. 41% success.

MEASURE 2:

1. During muscle contraction, myosin cross bridges attach to which active sites?

- actin filaments
- thick filaments
- Z discs
- myosin filaments

MEASURE 2 TYPE: Direct

MEASURE 2 RESULTS: 66 students questioned and 38 answered correctly. 58% success.

MEASURE 3:

1. The sliding filament model of contraction involves ________.

- the Z discs sliding over the myofilaments
- the shortening of thick filaments so that thin filaments slide past
- actin and myosin shortening but not sliding past each other
- actin and myosin sliding past each other and overlapping

MEASURE 3 TYPE: Direct

MEASURE 3 RESULTS: 66 students questioned and 29 answered correctly. 48% success.
FINDINGS

over all only 48% (mean of the mean for three measures) of students (n=66) answered questions correctly.

TARGET LEVEL ACHIEVEMENT

Not Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Students have the best understanding to the activities of the molecular participants during muscle contraction.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Students do not have a strong understanding of any of the muscle contraction physiology.

ADDITIONAL COMMENTS:

Not all students were queried. Faculty will be urged to complete questions and submit answers.

1. Faculty will be made aware of results and will collaborate to devise a plan of action.
2. Faculty will be made aware of results and will collaborate to devise a plan of action.
3. Faculty will be made aware of results and will collaborate to devise a plan of action.

COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION

Planned Changes

CHANGE METHODS OF DATA COLLECTION

Planned Changes

DESCRIBE CHANGES

Faculty will be made aware of results and will collaborate to devise a plan of action, including better data collection methods.

PERSON/ GROUP RESPONSIBLE FOR ACTION

Biology Anatomy and Physiology Professors.

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

08/15/2017

PRIORITY

Medium

Course Outcome

Identify the joint classification and potential movements at all skeletal articulations.

AY 2017-2018
MEASURE 1: The more stable a joint is
   a. the less mobility it has
   b. the more mobility it has
   c. Stability has little to do with mobility.

MEASURE 1 TYPE: Direct
MEASURE 1 RESULTS: 66 students questioned, 44 answered correctly 67% success

MEASURE 2: What is moving a limb away from the median plane of the body along the frontal plane called?
   a. adduction
   b. abduction
   c. inversion
   d. dorsiflexion

MEASURE 2 TYPE: Direct

Course Outcome Identify the various tissues and structures of the integumentary system and describe the function of each.

AY 2017-2018

MEASURE 1: Regarding the integumentary system, the epidermis is ________________ tissue. While the dermis mostly ________________ tissue.
   a. connective/muscular
   b. muscular/ epithelial
   c. epithelial/connective
   d. connective/epithelial
   e. None of the above are correct

MEASURE 1 TYPE: Direct
MEASURE 1 RESULTS: 66 students questioned, 48 answered correctly. 73% success

MEASURE 2: The epidermis consists of five layers of cells, each layer with a distinct role to play in the health, well-being, and functioning of the skin. Which of the following layers is responsible for cell division and replacement?
   a. stratum corneum
   b. stratum lucidum
   c. stratum granulosum
   d. stratum basale

MEASURE 2 TYPE: Direct
MEASURE 2 RESULTS: 66 students questioned, 48 answered correctly. 73% success

MEASURE 3: Nutrients reach the surface of the skin (epidermis) through the process of ________.
   a. absorbing materials applied to the surface layer of the skin
   b. utilizing the products of merocrine glands to nourish the epidermis
   c. filtration
   d. diffusing through the tissue fluid from blood vessels in the dermis

MEASURE 3 TYPE: Direct
MEASURE 3 RESULTS: 66 students questioned, 47 answered correctly. 71% success
FINDINGS
Overall 72% (mean of the mean) answered all questions correctly.

TARGET LEVEL ACHIEVEMENT
Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.
Further Action Planned

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Students have an adequate understanding.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Physiology based question had lower success rate. (n=1)

ADDITIONAL COMMENTS:
Not all students were questioned. Data collection needs to be more consistant.

1. More consistent data collection will yield more reliable results.
2. More consistent data collection will yield more reliable results.
3. More consistent data collection will yield more reliable results.

CHANGE METHODS OF DATA COLLECTION
Planned Changes

DESCRIBE CHANGES
More consistent data collection will yield more reliable results.

PERSON/ GROUP RESPONSIBLE FOR ACTION
Biology Anatomy and Physiology Professors.
**BIO 202 Chang Assessment Plan Data**

**Course Outcome**
Exam grades comparison: Performance of students doing "Think Pair Share" iClickers versus solo.

**AY 2017-2018**

**MEASURE 1:**
Compare exam grades of students from 2016-17 to students in 2017-18 who were allowed to do "Think Pair Share" on their iClicker quizzes.

I would expect an increase in exam grades from 2017-18 over students from 2016-17

**MEASURE 1 TYPE:** Direct

**MEASURE 1 RESULTS:**

<table>
<thead>
<tr>
<th>Exam 1 (avg)</th>
<th>Exam 2 (avg)</th>
<th>Exam 3 (avg)</th>
<th>Exam 4 (avg)</th>
<th>Final (avg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP17 75.72</td>
<td>70.52</td>
<td>73.27</td>
<td>69.07</td>
<td>72.44</td>
</tr>
<tr>
<td>SP18 79.42</td>
<td>78.90</td>
<td>80.19</td>
<td>72.39</td>
<td>79.68</td>
</tr>
</tbody>
</table>

**FINDINGS**

<table>
<thead>
<tr>
<th>Exam 1 (avg)</th>
<th>Exam 2 (avg)</th>
<th>Exam 3 (avg)</th>
<th>Exam 4 (avg)</th>
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</tr>
</thead>
<tbody>
<tr>
<td>SP17 75.72</td>
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<td>78.90</td>
<td>80.19</td>
<td>72.39</td>
<td>79.68</td>
</tr>
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<td>Difference 3.70</td>
<td>8.38</td>
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<tr>
<td>Average 5.91</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

**TARGET LEVEL ACHIEVEMENT**
Met

Further Action Unnecessary

**OVERALL SUMMARY OF FINDINGS**
Students allowed to do Think Pair Share during review quizzes performed better in their exams by an average of 5.3%

**WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**
This assessment was able to preliminarily support more interactions between students with activities such as Think Pair Share to help retain information and perform better in the course.

**WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**
This assessment compared only one semester of grades from year to year. Would be more confident of the performance increase if data was collected for another year.

**1.**
Continue collecting data of student performance with the added Think Pair Share during review quizzes.

**COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION**
Planned Changes

**DESCRIBE CHANGES**
Plan to collect another year of data to reinforce this semester's data

**PERSON/ GROUP RESPONSIBLE FOR ACTION**
Joann Chang

**TARGET DATE FOR IMPLEMENTATION OF THE ACTION**
08/20/2018

**PRIORITY**
Low

**DESCRIBE ANY ADDITIONAL RESOURCES NEEDED (LEAVE BLANK IF NO ADDITIONAL RESOURCES ARE NEEDED.**
This would data collection would have to be taken over by other faculty who will be teaching BIO 202. I will be rotating off BIO 202, but plan to possibly do this analysis with BIO 160.

---

**Course Outcome**
iClicker quizzes comparison: Scores of students' quizzes in "Think Pair Share" versus solo while taking the iClicker review quizzes.

**AY 2017-2018**
MEASURE 1: Compare average iClicker quiz grades from 2016-17 academic year versus 2017-18

MEASURE 1 TYPE: Direct

MEASURE 1 RESULTS: Expect a 50% increase in performance in the 2017-18 iClicker quizzes over the 2016-17

FINDINGS

<table>
<thead>
<tr>
<th>AVG (%)</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Q5</th>
<th>Q6</th>
<th>Q7</th>
<th>Q8</th>
<th>Q9</th>
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<tr>
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<td>90</td>
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<td>81.82</td>
<td>79.43</td>
<td>80.6</td>
</tr>
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</table>

TARGET LEVEL ACHIEVEMENT Met

OVERALL SUMMARY OF FINDINGS

Out of the 16 iClicker quizzes administered, 10 quizzes from the Spring 2018 sections performed better with the think pair share format versus students doing them solo.

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Having students converse with a partner (Think Pair Share) helped them perform better on these iClicker review quizzes over last year’s students doing the quiz on their own.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Although students performed better on the iClicker quizzes with a partner, this assessment does not capture whether students learned more about the course content and performed better on exams that they take on their own.

1. 62.5% of the iClicker quizzes were performed better in the "Think Pair Share" versus the solo format, so the measure was met. It will be best to continue to this format and collect data to determine if students continue to perform well.

2. Individual student performance with exams will always need to be analyzed with this measure to gain an idea if the "Think Pair Share" iClicker aided students’ individual performances.

COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION

Planned Changes

DESCRIBE CHANGES

Continue to collect data to continue to monitor student performance in the iClicker quizzes in the "Think Pair Share" format.

PERSON/ GROUP RESPONSIBLE FOR ACTION

Joann Chang

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

08/20/2018

PRIORITY

Medium
BIO 202 Dehne Assessment Plan Data

Course Outcome

Upon satisfactory completion of this course, students will be able to demonstrate knowledge of endocrine physiology, the stimulation of hormone release, the mechanism of both lipid soluble and water soluble hormones, positive and negative feedback mechanisms, and gene expression. [AWC BIO-202 LO 2.2]

AY 2017-2018

MEASURE 1:

While the items included in this assessment plan are all questions from the unit exams or the final exam and therefore have an objective question format, these are not, nor should they be considered the only form of assessment used in this course or by this instructor.

EXAM FORMAT: All lecture content (including unit and comprehensive final) exams have a “drill” component. Thus, unlike many “simple” multiple choice exams, students are not given time to deeply consider their choices. They either know the answer or they do not; they must make a choice and move on. All exams are timed. Students have a total of 60 minutes to read, answer, and record answers to 99 multiple-choice questions. Built into this 60 minutes students will take approximately 5 minutes to transfer their answers to a paper answer sheet and then 3-5 more minutes enter them into the iClicker® software. Thus, for all such exams students have (on average) 30 seconds to read and answer each question. The exams are designed specifically so as to NOT allow deep contemplation over each question and choices. The questions are written and selected to require knowledge and understanding of several aspects of the content including vocabulary, mechanisms, and application of knowledge.

This question was on a UNIT EXAM. It assesses the students’ understanding of endocrine physiology in terms of the action of water soluble hormones to initiate a signaling cascade, understanding of the relationship between target cells and their receptors, and the action of protein kinases in second messenger signaling. Eighty percent of the students will answer this question correctly.

Hormones often cause a cell to elicit multiple responses; this is because
A) there are thousands of receptors on the cell membrane.
B) the receptors bind to several hormones at the same time.
C) the protein kinases are rapidly metabolized into functional amino acids.
D) during protein kinase activation, enzymes phosphorylate many other enzymes.

Correct answer: D

MEASURE 1 TYPE: Direct

MEASURE 1 RESULTS: Of the thirty-one students who completed this exam during the Spring 2018 semester, twenty-three (74%) answered this question correctly.
MEASURE 2: While the items included in this assessment plan are all questions from the unit exams or the final exam and therefore have an objective question format, these are not, nor should they be considered the only form of assessment used in this course or by this instructor.

EXAM FORMAT: All lecture content (including unit and comprehensive final) exams have a “drill” component. Thus, unlike many “simple” multiple choice exams, students are not given time to deeply consider their choices. They either know the answer or they do not; they must make a choice and move on. All exams are timed. Students have a total of 60 minutes to read, answer, and record answers to 99 multiple-choice questions. Built into this 60 minutes students will take approximately 5 minutes to transfer their answers to a paper answer sheet and then 3-5 more minutes enter them into the iClicker2® software. Thus, for all such exams students have (on average) 30 seconds to read and answer each question. The exams are designed specifically so as to NOT allow deep contemplation over each question and choices. The questions are written and selected to require knowledge and understanding of several aspects of the content including vocabulary, mechanisms, and application of knowledge.

This question was on a UNIT EXAM. It assesses the students’ understanding of endocrine physiology in terms of the relationship between second messengers and water-soluble peptide hormones, understanding of the relationship between target cells and their receptors, and the action of G proteins as the link between them. Eighty percent of the students will answer this question correctly.

Cells that respond to peptide hormones usually do so through a sequence of biochemical reactions involving receptor and kinase activation. In order for cells to respond, it is necessary for first and second messengers to communicate. This is possible because ________.
A) peptide hormones are converted by cell membranes enzymes into second messengers
B) hormones alter cellular operations through direct stimulation of a gene
C) G protein acts as the link between first and second messengers
D) the hormone receptor complex moves into the cytoplasm as a unit

correct answer C

MEASURE 2 TYPE: Direct

MEASURE 2 RESULTS: Of the thirty-one students who completed this exam during the Spring 2018 semester, twenty-eight (90%) answered this question correctly.

MEASURE 3: While the items included in this assessment plan are all questions from the unit exams or the final exam and therefore have an objective question format, these are not, nor should they be considered the only form of assessment used in this course or by this instructor.

EXAM FORMAT: All lecture content (including unit and comprehensive final) exams have a “drill” component. Thus, unlike many “simple” multiple choice exams, students are not given time to deeply consider their choices. They either know the answer or they do not; they must make a choice and move on. All exams are timed. Students have a total of 60 minutes to read, answer, and record answers to 99 multiple-choice questions. Built into this 60 minutes students will take approximately 5 minutes to transfer their answers to a paper answer sheet and then 3-5 more minutes enter them into the iClicker2® software. Thus, for all such exams students have (on average) 30 seconds to read and answer each question. The exams are designed specifically so as to NOT allow deep contemplation over each question and choices. The questions are written and selected to require knowledge and
understanding of several aspects of the content including vocabulary, mechanisms, and application of knowledge.

This question was on a UNIT EXAM. It assesses the students’ understanding of steroid hormones as lipid soluble, understanding of endocrine physiology in terms of the relationship between lipid hormones and their effect on their target cells, knowledge of the location of hormone receptors for lipid soluble hormones, and contrasts the activity of lipid soluble (direct gene activation) with water soluble hormones (which use second messengers). Eighty percent of the students will answer this question correctly.

Which of the following would be associated with the action of steroids on cells?
A) extracellular receptors with a specificity for only a single amino acid sequence on the hormone
B) an enzyme that catalyzes the formation of cyclic AMP
C) second-messenger systems
D) a hormone-receptor complex that interacts directly with the cell's DNA

correct answer: D

**MEASURE 3 TYPE:** Direct

**MEASURE 3 RESULTS:** Of the thirty-one students who completed this exam during the Spring 2018 semester, twenty-five (84%) answered this question correctly.

**FINDINGS**

The high performance (raw scores) on these questions should not be considered an “normal” performance. The student population in my sections of BIO-202 was unique this semester because they were all primarily “A students” from my BIO-201 in the Fall 2018. Only two of the thirty-one students who enrolled in these courses with me were NOT from my BIO-201 course. Those students advised me (via a course introduction survey form) that they did very well in their BIO-201 and that they had specifically chosen to take this course with me because they heard from others that as a professor, my courses are difficult, require a great-deal of work, but that they would learn a lot if they put in the work. Thus, because 100% of the students in these courses 1) knew the rigor of the course, 2) knew what it takes to be successful in my courses, and finally 3) were at least somewhat familiar with the requirements of the hybrid course format as I structure it before the class started, the population was skewed in the direction of a favorable learning environment. Because I was familiar with these students from their academic success in a previous course, I can say with confidence that as a group, I observed them to be highly motivated and independent learners, with a drive toward academic excellence. Students in my classes engage regularly in various of group work. During these assignments, observed them to be competitive individually and yet eager to collaborate with their classmates. Several times throughout the semester, I heard them expressing competition for the highest grade, and offering helpful hand toward those who did not find themselves among the most successful. (It was not uncommon to hear them say things like, “Oh man! I can't believe you beat me!” and “You should come to our study group!” They came with academic personalities demonstrating a extrinsic locus of control in academics (no “whiners” or “slashers”) and routinely demonstrated that they wanted to UNDERSTAND and learn the course material. I routinely observed a high drive to excel. Among these students was a cohort of AWC Honors students (this was not an Honors course, so I did not modify the content or include additional assignments as other Honors courses do.) Finally, the population should not be considered a “normal representation” because students from my previous course (BIO-201) who did not do well or find the hybrid course structure conducive to their learning style were encouraged to consider that they would likely find success in face-to-face classes (which were this semester all taught by other biology faculty). In this review the focus for me is therefore on the difference between the performance on various question aspects of each learning objective.
Because this group of students (albeit enrolled in two different sections) were unique, I chose to assess my teaching using the uniformity of their performance on these questions as a measure of my teaching success. The assumption is that observed differences could be attributed to differences in degree of time-spent on lecture. Of note, the goal for the standard is therefore set high and analysis of level of achievement is based primarily on uniformity of success across questions rather than a simple measure of the mean of the mean.

Goal for this standard was that 80% of BIO-202-001 and BIO-202-006 students would be able to correctly answer each of these questions. Overall 83% (mean of the mean) of these questions which assessed student demonstration of knowledge of endocrine physiology were answered correctly. Of the thirty-one students who completed this exam, 74% were able to demonstrate understanding of endocrine physiology in terms of the action of water soluble hormones to initiate a signaling cascade, understanding of the relationship between target cells and their receptors, and the action of protein kinases in second messenger signaling (M1), 90% were able to demonstrate understanding of endocrine physiology in terms of the relationship between second messengers and water soluble peptide hormones, understanding of the relationship between target cells and their receptors, and the action of G proteins as the link between them (M2), and 84% were able to demonstrate knowledge that steroid hormones are lipid soluble, demonstrate understanding of endocrine physiology in terms of the relationship between lipid hormones and their effect on their target cells, demonstrate knowledge of the location of hormone receptors for lipid soluble hormones, and contrasts the activity of lipid soluble (direct gene activation) with water soluble hormones (which use second messengers) (M3).

TARGET LEVEL

ACHIEVEMENT

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

OVERALL SUMMARY OF FINDINGS

(Optional Entry: Fill out after entering the results for the last outcome/goal being assessed if you would like to provide an overall summary of your findings for the course/Program/Department being assessed.)

What strengths were displayed through the assessments of your measures?

A high percentage of students 90% were able to demonstrate understanding of endocrine physiology in terms of the relationship between second messengers and water soluble peptide hormones, understanding of the relationship between target cells and their receptors, and the action of G proteins as the link between them (M2), and 84% were able to demonstrate knowledge that steroid hormones are lipid soluble, demonstrate understanding of endocrine physiology in terms of the relationship between lipid hormones and their effect on their target cells, demonstrate knowledge of the location of hormone receptors for lipid soluble hormones, and contrasts the activity of lipid soluble (direct gene

When using uniformity of performance as a measure, a significant difference was found the teaching effectiveness based on degree of delivery and time spent content in lecture. Instructor will continue to use these assessment items on the unit exam and include it moving forward on the final exam.

Lecture content will be restructured to include more discussion and continuous review of the action of hormones on their target cells, building a stronger scaffold of information, and include formative assessments which compare and contrast and water and lipid soluble hormone activities.
activation) with water soluble hormones (which use second messengers) (M3).

Only 74% of students were able to demonstrate understanding of endocrine physiology in terms of the action of water soluble hormones to initiate a signaling cascade, understanding of the relationship between target cells and their receptors, and the action of protein kinases in second messenger signaling.

This area was targeted for assessment of teaching effectiveness because a great deal of time is spent on it in lecture. The selected textbook, and supplemental animations are NOT well done, and the assumption has been that the increased lecture time would be beneficial to student learning. Instructor will continue to use this assessment item, restructure lecture content to include more discussion of the action of hormones on their target cells, build a stronger scaffold of information, include more discussion on role of protein kinases as enzymes that phosphorylate and act on other enzymes, develop formative assessments which both compare and contrast and activity of water and lipid soluble hormone activities.

1. Reconstruct lectures to better clarify endocrine physiology in terms of the action of water soluble hormones to initiate a signaling cascade, understanding of the relationship between target cells and their receptors, and the action of protein kinases in second messenger signaling.

2. Increase continuous formative assessment and recheck information on final exam.

3. Increase emphasis on role of protein kinases as enzymes that phosphorylate and act on other enzymes.

Course Outcome

Upon satisfactory completion of this course, students will be able to demonstrate understanding of the anatomy of the heart at the gross and microscopic level, blood flow through the heart, the physiology of heart contractions, cardioconduction,
and coronary circulation. [AWC BIO-202 LO 2.3]

AY 2017-2018

MEASURE 1:

While the items included in this assessment plan are all questions from the unit exams or the final exam and therefore have an objective question format, these are not, nor should they be considered the only form of assessment used in this course or by this instructor.

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This question was on a UNIT EXAM. It assesses the students’ understanding of blood flow through the heart, by challenging their understanding of the definitions of systole and diastole, the distinction between the ventricles and the atria, and the function of both the AV and semilunar valves. Seventy percent of students will answer this question correctly.

Which of the events below does not occur when the semilunar valves are open?
A) Ventricles are in diastole.
B) Blood enters pulmonary arteries and the aorta.
C) AV valves are closed.
D) Ventricles are in systole.

correct answer A

MEASURE 1 TYPE: Direct
MEASURE 1 RESULTS: Of the twenty-seven students who completed this exam during the Spring 2018 semester, twenty (74%) answered this question correctly

MEASURE 2:

While the items included in this assessment plan are all questions from the unit exams or the final exam and therefore have an objective question format, these are not, nor should they be considered the only form of assessment used in this course or by this instructor.

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minutes enter them into the iClicker2® software once transferred.) Thus, for all such exams students have (on average) 30 seconds to read and answer each question. The exams are designed specifically so as to NOT allow deep contemplation over each question and choices. The questions are written and selected to require knowledge and understanding of several aspects of the content including vocabulary, mechanisms, and application of knowledge.

This question was on a UNIT EXAM. It assesses the students' understanding of the physiology of heart contractions by challenging their understanding of the relationship between anatomy myocardium and resistance to blood flow. Seventy percent of the students will answer this question correctly.

The fact that the left ventricle of the heart is thicker than the right ventricle reveals that it ________.
A) pumps a greater volume of blood
B) pumps blood against a greater resistance
C) expands the thoracic cage
D) sends blood through a smaller valve

correct answer: B

MEASURE 2 TYPE: Direct
MEASURE 2 RESULTS: Of the twenty-seven students who completed this exam during the Spring 2018 semester, seventeen (63%) answered this question correctly

MEASURE 3: While the items included in this assessment plan are all questions from the unit exams or the final exam and therefore have an objective question format, these are not, nor should they be considered the only form of assessment used in this course or by this instructor.

EXAM FORMAT: A All lecture content (including unit and comprehensive final) exams have a “drill” component. Thus, unlike many “simple” multiple choice exams, students are not given time to deeply consider their choices. They either know the answer or they do not; they must make a choice and move on. All exams are timed. Students have a total of only 60 minutes to read, answer, and record answers to 99 multiple-choice questions. (Built into this 60 minutes students will take approximately 5 minutes to transfer their answers to a paper answer sheet and then 3-5 more minutes enter them into the iClicker2® software once transferred.) Thus, for all such exams students have (on average) 30 seconds to read and answer each question. The exams are designed specifically so as to NOT allow deep contemplation over each question and choices. The questions are written and selected to require knowledge and understanding of several aspects of the content including vocabulary, mechanisms, and application of knowledge.

This question was on a UNIT EXAM. It assesses the students' understanding of blood flow through the heart of by challenging their understanding of blood flow as it exits the heart and applying the definition of systole. Seventy percent of students will answer this question correctly.

Which of the these vessels receives blood during ventricular systole?
A) aorta only
B) pulmonary arteries only
C) pulmonary veins only
D) both the aorta and pulmonary trunk

correct answer: D

MEASURE 3 TYPE: Direct
MEASURE 3 RESULTS:

Of the twenty-seven students who completed this exam during the Spring 2018 semester, twenty (74%) answered this question correctly.

FINDINGS

The high performance (raw scores) on these questions should not be considered an “normal” performance. The student population in my sections of BIO-202 was unique this semester because they were all primarily “A students” from my BIO-201 in the Fall 2018. Only two of the thirty-one students who enrolled in these courses with me were NOT from my BIO-201 course. Those students advised me (via a course introduction survey form) that they did very well in their BIO-201 and that they had specifically chosen to take this course with me because they heard from others that as a professor, my courses are difficult, require a great-deal of work, but that they would learn a lot if they put in the work. Thus, because 100% of the students in these courses 1) knew the rigor of the course, 2) knew what it takes to be successful in my courses, and finally 3) were at least somewhat familiar with the requirements of the hybrid course format as I structure it before the class started, the population was skewed in the direction of a favorable learning environment. Because I was familiar with these students from their academic success in a previous course, I can say with confidence that as a group, I observed them to be highly motivated and independent learners, with a drive toward academic excellence. Students in my classes engage regularly in various of group work. During these assignments, observed them to be competitive individually and yet eager to collaborate with their classmates. Several times throughout the semester, I heard them expressing competition for the highest grade, and offering helpful hand toward those who did not find themselves among the most successful. (It was not uncommon to hear them say things like, “Oh man! I can't believe you beat me!” and “You should come to our study group!” They came with academic personalities demonstrating a extrinsic locus of control in academics (no “whiners” or “slackers”) and routinely demonstrated that they wanted to UNDERSTAND and learn the course material. I routinely observed a high drive to excel. Among these students was a cohort of AWC Honors students (this was not an Honors course, so I did not modify the content or include additional assignments as other Honors courses do.) Finally, the population should not be considered a “normal representation” because students from my previous course (BIO-201) who did not do well or find the hybrid course structure conducive to their learning style were encouraged to consider that they would likely find success in face-to-face classes (which were this semester all taught by other biology faculty). In this review the focus for me is therefore on the difference between the performance on various question aspects of each learning objective.

Because this group of students (albeit enrolled in two different sections) were unique, I chose to assess my teaching using the uniformity of their performance on these questions as a measure of my teaching success. The assumption is that observed differences could be attributed to differences in degree of time-spent on lecture. Of note, the goal for the standard is therefore set high and analysis and of level of achievement is based primarily on uniformity of success across questions rather than a simple measure of the mean of the mean.

Goal for this standard was set lower than others because by comparison to other learning objectives less time is spent on this content during lecture. It was set that 70% of BIO-202-001 and BIO-202-006 students would be able to correctly answer each of these questions. Overall 70% (mean of the mean) of these questions which assessed student demonstration of knowledge of endocrine physiology were answered correctly. Of the twenty-seven students who completed this exam, 74% were able to meet goal correctly answer two different questions about blood flow through the heart (M1 and M3), but only 63% were able to discern relationship between myocardial anatomy and resistance to blood flow (M2).

TARGET LEVEL

ACHIEVEMENT

Partially Met
When using uniformity of performance as a measure, a significant difference was found in teaching effectiveness based on degree of delivery and time spent content in lecture. Instructor will continue to use these assessment items on the unit exam and include it moving forward on the final exam.

Lecture content will be restructured to include more discussion and continuous review of the relationship between myocardial anatomy and resistance to blood flow, building a stronger scaffold of information, and include formative assessments which address resistance to blood flow and myocardial anatomy.

### WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

An adequate percentage of students (74%) were twice able to demonstrate understanding of blood flow through the heart, by applying definitions of systole and diastole, the distinction between the ventricles and the atria, and the function of both the AV and semilunar valves (M1), and by applying knowledge definition of systole, and of blood flow as it exits the heart (M3).

### WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Only 63% were able to demonstrate understanding of the physiology of heart contractions by applying knowledge of the relationship between anatomy of myocardium and resistance to blood flow (M2).

### ADDITIONAL COMMENTS:

This area was targeted for assessment of teaching effectiveness because not a great deal of time is spent on it in lecture. The selected textbook, and supplemental animations are extraordinarily well done, and the assumption has been that the reduced lecture along with these resources are sufficient. Instructor will continue to use this assessment item, restructure lecture content to include more discussion of the physiology of heart contractions and relationship between anatomy of myocardium and resistance to blood flow.

1. Incorporate more information into lectures about the resistance to blood flow in lectures. Spend more time in lecture on this topic and engage in more formative assessment.

2. Incorporate more information into lectures about the relationship of the thickness of the myocardium to its strength. Spend more time in lecture on this topic and engage in more formative assessment.

3. Incorporate more information into lectures about the relationship of myocardium anatomy resistance to blood flow. Spend more time in lecture on this topic and engage in more formative assessment.

### COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION

Planned Changes

### OTHER

Modify lectures

### DESCRIBE CHANGES

Incorporate more information into lectures about the myocardium anatomy, resistance to blood flow, and the relationship between the two. Spend more time in lecture on this topic and engage in more formative assessment.
**Course Outcome**

Upon satisfactory completion of this course, students will be able to describe the mechanisms and control of ventilation, external and internal respiration events and mechanisms, gas transport, the role of the respiratory system in maintaining blood pH, and the consequences of homeostatic imbalance.

[AWC BIO-202 LO 2.9]

### AY 2017-2018

**MEASURE 1:** While the items included in this assessment plan are all questions from the unit exams or the final exam and therefore have an objective question format, these are not, nor should they be considered the only form of assessment used in this course or by this instructor.

**EXAM FORMAT:** All lecture content (including unit and comprehensive final) exams have a “drill” component. Thus, unlike many “simple” multiple choice exams, students are not given time to deeply consider their choices. They either know the answer or they do not; they must make a choice and move on. All exams are timed. Students have a total of only 60 minutes to read, answer, and record answers to 99 multiple-choice questions. Built into this 60 minutes students will take approximately 5 minutes to transfer their answers to a paper answer sheet and then 3-5 more minutes enter them into the iClicker2® software. Thus, for all such exams students have (on average) 30 seconds to read and answer each question. The exams are designed specifically so as to NOT allow deep contemplation over each question and choices. The questions are written and selected to require knowledge and understanding of several aspects of the content including vocabulary, mechanisms, and application of knowledge.

This question was on a **COMPREHENSIVE FINAL EXAM**. It assesses the students’ understanding of gas transport by challenging their understanding of the relationship between carbon dioxide transport and the role of the enzyme carbonic anhydrase. Eighty percent of students will answer this question correctly.

The largest amount of carbon dioxide is transported in the bloodstream in the form of carbonic anhydrase.

A) True  
B) False

**correct answer: B (false)**

**MEASURE 1 TYPE:** Direct

**MEASURE 1 RESULTS:** Of the twenty-seven students who completed this question on their final exam
at the end of the Spring 2018 semester, 24 (89%) answered this question correctly.

MEASURE 2:

While the items included in this assessment plan are all questions from the unit exams or the final exam and therefore have an objective question format, these are not, nor should they be considered the only form of assessment used in this course or by this instructor.

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This question was on a COMPREHENSIVE FINAL EXAM. It assesses the students’ understanding of one consequence of homeostatic imbalance by challenging their understanding of the role of surfactant in preventing alveolar collapse. Eighty percent of students will answer this question correctly.

Surfactant helps to prevent the alveoli from collapsing by ________.
A) humidifying the air before it enters
B) warming the air before it enters
C) protecting the surface of alveoli from dehydration and other environmental variations
D) interfering with the cohesiveness of water molecules, thereby reducing the surface tension of alveolar fluid

Correct answer: D

MEASURE 2 TYPE: Direct

MEASURE 2 RESULTS: Of the twenty-seven students who completed this question on their final exam at the end of the Spring 2018 semester, twenty-three (85%) answered this question correctly.

MEASURE 3:

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EXAM FORMAT: All lecture content (including unit and comprehensive final) exams have a “drill” component. Thus, unlike many “simple” multiple choice exams, students are not given time to deeply consider their choices. They either know the answer or they do not; they must make a choice and move on. All exams are timed. Students have a total of only 60 minutes to read, answer, and record answers to 99 multiple-choice questions. Built into this 60 minutes students will take approximately 5 minutes to transfer their answers to a paper answer sheet and then 3-5 more minutes enter them into the iClicker2® software. Thus, for all such exams students have (on average) 30 seconds to read and answer each question. The exams are
designed specifically so as to NOT allow deep contemplation over each question and choices. The questions are written and selected to require knowledge and understanding of several aspects of the content including vocabulary, mechanisms, and application of knowledge.

This question was on a **COMPREHENSIVE FINAL EXAM**. It assesses the students’ understanding of external and internal respiration events and mechanisms by challenging their understanding of partial pressure gradients as it relates to the direction of gas movement. Eighty percent of students will answer this question correctly.

Which of the choices below determines the direction of respiratory gas movement?
A) solubility in water
B) partial pressure gradient
C) the temperature
D) molecular weight and size of the gas molecule

**correct answer: B**

**FINDINGS**

The high performance (raw scores) on these questions should not be considered an “normal” performance. The student population in my sections of BIO-202 was unique this semester because they were all primarily “A students” from my BIO-201 in the Fall 2018. Only two of the thirty-one students who enrolled in these courses with me were NOT from my BIO-201 course. Those students advised me (via a course introduction survey form) that they did very well in their BIO-201 and that they had specifically chosen to take this course with me because they heard from others that as a professor, my courses are difficult, require a great-deal of work, but that they would learn a lot if they put in the work. Thus, because 100% of the students in these courses 1) knew the rigor of the course, 2) knew what it takes to be successful in my courses, and finally 3) were at least somewhat familiar with the requirements of the hybrid course format as I structure it before the class started, the population was skewed in the direction of a favorable learning environment. Because I was familiar with these students from their academic success in a previous course, I can say with confidence that as a group, I observed them to be highly motivated and independent learners, with a drive toward academic excellence. Students in my classes engage regularly in various of group work. During these assignments, observed them to be competitive individually and yet eager to collaborate with their classmates. Several times throughout the semester, I heard them expressing competition for the highest grade, and offering helpful hand toward those who did not find themselves among the most successful. (It was not uncommon to hear them say things like, “Oh man! I can't believe you beat me!” and “You should come to our study group!”) They came with academic personalities demonstrating a extrinsic locus of control in academics (no “whiners” or “slackers”) and routinely demonstrated that they wanted to UNDERSTAND and learn the course material. I routinely observed a high drive to excel. Among these students was a cohort of AWC Honors students (this was not an Honors course, so I did not modify the content or include additional assignments as other Honors courses do.) Finally, the population should not be considered a “normal representation” because students from my previous course (BIO-201) who did not do well or find the hybrid course structure conducive to their learning style were encouraged to consider that they would likely find success in face-to-face classes (which were this semester all taught by other biology faculty). In this review the focus for me is therefore on the difference between the performance on various question aspects of each learning objective.
Because this group of students (albeit enrolled in two different sections) were unique, I chose to assess my teaching using the uniformity of their performance on these questions as a measure of my teaching success. The assumption is that observed differences could be attributed to differences in degree of time-spent on lecture. Of note, the goal for the standard is therefore set high and analysis and of level of achievement is based on uniformity of success across questions rather than a simple measure of the mean of the mean.

Goal for this standard was that 80% of BIO-202-001 and BIO-202-006 students would be able to correctly answer each of these questions. Overall 83% (mean of the mean) of these questions which assessed student demonstration of knowledge of respiratory system physiology were answered correctly. Of the twenty-seven students who completed this exam, 89% were able to demonstrate understanding of gas transport by answering a question about carbon dioxide transport (M1), 85% were demonstrate understanding of consequence of homeostatic imbalance by correctly answering a question about the role of surfactant in preventing alveolar collapse (M2), and 74% were able to demonstrate knowledge of external and internal respiration mechanism by answering a question about partial pressure gradients as they relate to the direction of gas movement (M3).

When using uniformity of performance as a measure, a significant difference was found the teaching effectiveness based on degree of delivery and time spent content in lecture. Instructor will continue to use these assessment items on the unit exam and include it moving forward on the final exam.

Lecture content will be restructured to include more discussion and continuous review of the internal and external respiration mechanisms with a focus on the relationship of partial pressure of gasses, building a stronger scaffold of information, and include more formative assessments which address this topic.

A high percentage of students 89% were able to demonstrate understanding of respiratory system physiology in terms of gas transport by correctly answering a question about carbon dioxide transport (M1), and 85% were able to demonstrate understanding of a consequence of homeostatic imbalance by correctly answering a question about the role of surfactant in preventing alveolar collapse (M2).

The lowest percentage of students (74%) were able to demonstrate understanding of respiratory system physiology in terms partial pressure gradients as they relate to both the events and the mechanisms of external and internal respiration(M3).

This area was targeted for assessment of teaching effectiveness because there is a mix of quantity of time spent on respiratory physiology lecture in class. Some aspects (including gas transport and role of surfactant in respiratory homeostasis) have a great deal of devoted lecture time and some aspects (partial pressure gradients as they relate to mechanisms of internal and external respiration)
have less devoted lecture time. The instructor has been reliant on the well-presented information in the textbook and animations for those content areas. The selected textbook, and supplemental animations are good but not great in terms of presenting information about both gas transport and the events of internal and external respiration, and does an exceptionally good job of presenting the concept of partial pressures as they relate to mechanisms of internal and external respiration. The assumption has been that the reduced lecture for mechanisms could be compensated for by the extraordinarily effective textbook and ancillary animations. Reduced scores seem to indicate a correlation between time spent in lecture and ability to demonstrate understanding of topic. Instructor will continue to use this assessment item, restructure lecture content to include more discussion of partial pressure gradients and internal and external respiration mechanisms.

1. Incorporate more information into lectures about the internal respiration events. Spend more time in lecture on this topic and engage in more formative assessment.

2. Incorporate more information into lectures about the external respiration events. Spend more time in lecture on this topic and engage in more formative assessment.

3. Incorporate more information into lectures about both internal and external respiration mechanisms and the role of partial pressure gradients. Spend more time in lecture on this topic and engage in more formative assessment.

Planned Changes

Update lectures and increase formative assessment

Incorporate more information into lectures about both internal and external respiration events and the role of partial pressure gradients in those events. Engage in more formative assessment.

Theresa Dehne

08/27/2018

High
BIO 202 Assessment Plan Data

Course Outcome
2.13 describe the mechanisms of filtration, reabsorption, and secretion, the countercurrent exchange mechanism, the role of the urinary system in maintaining blood properties, and the consequences of homeostatic imbalance.

AY 2017-2018

MEASURE 1:
1. Which of the following features would tend to promote greater water reabsorption by the kidney?

- Cortical nephron
- A short proximal tubule
- Higher pressure
- A short distal convolute tubule
- A long loop of Henle

MEASURE 1 TYPE: Direct
MEASURE 1 RESULTS: 60 out of 89 students answered correctly

MEASURE 2:
1. In the absence of hormones, the distal tubule and collecting ducts are relatively impermeable to water.

- True
- False

MEASURE 2 TYPE: Direct
MEASURE 2 RESULTS: 68 out of 89 students answered correctly

MEASURE 3:
The mechanism of water reabsorption by the renal tubules is _________.

- A) active transport
- B) osmosis
- C) solvent drag
- D) cotransport with sodium ions

MEASURE 3 TYPE: Direct
### MEASURE 3 RESULTS:
71 out of 89 students answered correctly

### FINDINGS
- Measure 1: 67% of students answered correctly
- Measure 2: 76% of students answered correctly
- Measure 3: 80% of students answered correctly

### TARGET LEVEL ACHIEVEMENT
- Partially Met

### OVERALL SUMMARY OF FINDINGS
Only one of the measure was not met out of three and the measure that did not meet was not that far from meeting our target 75%.

### WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Faculty did a fairly good job in teaching the physiological concepts associated to renal function. Renal physiology is another difficult area for students.

### WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Although we covered various areas of renal physiology, we need to assess students' understanding of the counter current mechanisms which is a major component of renal physiology.

1. Only measure 1 did not meet our criteria, but it came close. There might be just some minor tweaks to the instruction to fully meet our measures. There could be more diagramming or other reinforcements of the information that could be done. Faculty will have to discuss possible avenues.

### REVISE MEASUREMENT APPROACH
- **Planned Changes**

### DESCRIBE CHANGES
Plan to update a measure to gauge students' understanding of counter current mechanisms.

### PERSON/GROUP RESPONSIBLE FOR ACTION
BIO 202 faculty

### TARGET DATE FOR IMPLEMENTATION OF THE ACTION
01/01/2019

### PRIORITY
Low

### Course Outcome
2.2 demonstrate knowledge of endocrine physiology, the stimulation of hormone release, the mechanism of both lipid
soluble and water soluble hormones, positive and negative feedback mechanisms, and gene expression.

**AY 2017-2018**

**MEASURE 1:**

1. Dieting, starvation and just not eating for a long time can lead to gluconeogenesis. 
   Gluconeogenesis is when: A. Glucose molecules form fat B. Glycogen releases glucose into the blood C. Insulin releases glucose D. Proteins are changed into sugars

We expect 75% of students will answer correctly.

**MEASURE 1 TYPE:** Direct

**MEASURE 1 RESULTS:** 48 students out of 102 answered the question correctly. That is 47%.

**MEASURE 2:**

Oxytocin and ADH are produced in the posterior pituitary.

A. True
B. False

We expect 75% of students will answer correctly.

**MEASURE 2 TYPE:** Direct

**MEASURE 2 RESULTS:** 70 students out of 102 answered questions correctly. That is 69%.

**MEASURE 3:**

Steroid hormones exert their action by ________.
A) diffusion through lipid bilayers to enter the nucleus of a cell and initiating or altering the expression of a gene
B) finding an appropriate cell receptor and initiating cAMP activity
C) stimulating the synthesis of a glycogen
D) increasing blood pressure

We expect 75% of students will answer correctly.

**MEASURE 3 TYPE:** Direct

**MEASURE 3 RESULTS:** 93 students out of 102 answered correctly. That is 91%.

**FINDINGS**

Measure 1: 47% of students answered correctly
Measure 2: 69% of students answered correctly
Measure 3: 91% of students answered correctly

**TARGET LEVEL ACHIEVEMENT**

Partially Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.*

**OVERALL SUMMARY OF FINDINGS**

Measure 1 was more or less a definition of gluconeogenesis. Students did not fully understand the definition of this process.

Measure 2 almost met our expectations of student understanding the origins of oxytocin and ADH.

Measure 3 was met.

(IMPORTANT ENTRY: FILL OUT AFTER ENTERING THE RESULTS FOR THE LAST MEASURE)

https://azwestern.tk20.com/campustoolshighered/jsp/k12/reports/_6efe57...
WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Hormone chemistry is more complex, but a fundamental component of understanding the function of hormones. Measure 3 was able to demonstrate student understanding of this concept.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Measure 1 was more or less a definition of a molecular process. It is layered in the sense that it requires students to have their basic understanding of biochemistry to understand gluconeogenesis. This measure could be exposing a weakness in students' understanding of fundamentals.

1. It may be recommended to query students' knowledge of basic chemistry fundamentals at the start of the second semester of Anatomy & Physiology and to build reviews into the course if they are deficient.

REVISE MEASUREMENT APPROACH

Planned Changes

COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION

Planned Changes

CHANGE METHODS OF DATA COLLECTION

Planned Changes

PERSON/GROUP RESPONSIBLE FOR ACTION

Biology

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

01/01/2019

PRIORITY

Low

Course Outcome

2.9 describe the mechanisms and control of ventilation, external and internal respiration events and mechanisms, gas transport, the role of the respiratory system in maintaining blood pH, and the consequences of homeostatic imbalance.

AY 2017-2018

MEASURE 1:

1. Which mechanism is most responsible for keeping the lungs against the thoracic walls and preventing lung collapse?
Surface tension
Connective tissues
Differences in pressure
Respiratory adhesion
Surfactant

75% of students will answer correctly

MEASURE 1 TYPE: Direct
MEASURE 1 RESULTS: 46 out of 86 students answered correctly

MEASURE 2:
1. Ventilation perfusion coupling means that more blood flows past functional alveoli than past non functional alveoli.
   - True
   - False

75% of students will answer correctly

MEASURE 2 TYPE: Direct
MEASURE 2 RESULTS: 60 out of 86 students answered correctly

MEASURE 3:
Complete the following statement using the choices below. Air moves out of the lungs when the pressure inside the lungs is
A) less than the pressure in the atmosphere.
B) greater than the pressure in the atmosphere.
C) equal to the pressure in the atmosphere.
D) greater than the intra-alveolar pressure.

MEASURE 3 TYPE: Direct
MEASURE 3 RESULTS: 66 out of 86 students answered correctly

FINDINGS
Measure 1: 53% of students answered correctly
Measure 2: 70% of students answered correctly
Measure 3: 77% of students answered correctly

TARGET LEVEL
ACHIEVEMENT
Partially Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

OVERALL SUMMARY OF FINDINGS
Measure 1 fell short of the departments' goal of 75% of students understanding mechanisms preventing lung collapse. Measure 2 was almost met, while measure 3 was met.
WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Students had a good grasp of pressure gradients and how they affected ventilation. Ventilation - perfusion is a harder concept in the respiratory system due to the process being opposite to what is normal in the rest of the body. With 70% of students understanding this, faculty are well under way to getting this concept understood with hopefully a few modifications to the teaching.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

With the more complex concepts of respiration covered in Measures 2 & 3, it is surprising that students did not fully grasp the prevention of lung collapse with surface tension. There could be some confusion for students when reading a choice of respiratory adhesion. We would need to further analyze the wrong choice students picked the most.

1. Measure 1 may need different modalities to help explain to students so that they understand what surface tension is and how it relates to the lungs' plurae.

2. Measure 2 was almost met, so faculty may need to discuss additional methods of instruction to meet our goals.

COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION

Planned Changes

CHANGE METHODS OF DATA COLLECTION

Planned Changes

DESCRIBE CHANGES

Need to collect data on the wrong answers students chose to get a better understanding of what students were thinking for Measure 1

PERSON/ GROUP RESPONSIBLE FOR ACTION

BIO 202 instructors

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

01/01/2019

PRIORITY

Low

Course Outcome

Describe and identify the endocrine glands, hormones, negative feedback systems, and homeostatic imbalances.

AY 2017-2018

MEASURE 1:

70% of students queried will be able to answer this question correctly.

Dieting, starvation and just not eating for a long time can lead to gluconeogenesis. Gluconeogenesis is when:

a. Glucose molecules form fat
b. Glycogen releases glucose into the blood
c. Insulin releases glucose
d. Proteins are changed into sugars

**MEASURE 1 TYPE:** Direct

**MEASURE 2:**
70% of students queried will be able to answer question correctly.

**MEASURE 2 TYPE:** Direct

Oxytocin and ADH are produced in the posterior pituitary.

a. True
b. False

**MEASURE 3:**
70% of students queried will be able to answer question correctly.

**MEASURE 3 TYPE:** Direct

Steroid hormones exert their action by ________.

a. diffusion through lipid bilayers to enter the nucleus of a cell and initiating or altering the expression of a gene
b. finding an appropriate cell receptor and initiating cAMP activity
c. stimulating the synthesis of a glycogen
d. increasing blood pressure

**TARGET LEVEL**
Partially Met

**PERSON/ GROUP RESPONSIBLE FOR ACTION**
Biology Anatomy and Physiology Professors.

**PRIORITY**
High

---

**Course Outcome**
Describe the function of the nephron of the kidney and its physiological mechanisms for absorption and secretion.

---

**AY 2017-2018**

**MEASURE 1:**
Goal: 70% of students queried will answer question correctly.

Which of the following features would tend to promote greater water reabsorption by the kidney?
- Cortical nephron
- A short proximal tubule
- Higher pressure
- A short distal convolute tubule
- A long loop of Henle

**MEASURE 1 TYPE:** Direct

**MEASURE 1 RESULTS:**
Result: ____% of students answered question correctly.

**MEASURE 2:**
Goal: 70% of students queried will answer question correctly.

The mechanism of water reabsorption by the renal tubules is ________.
- active transport
- osmosis
solvent drag
cotransport with sodium ions

**MEASURE 2 TYPE:**
Direct

**MEASURE 2 RESULTS:**
Result: ____% of students answered question correctly.

**MEASURE 3:**
Goal: 70% of students queried will answer question correctly.

In the absence of hormones, the distal tubule and collecting ducts are relatively impermeable to water.
True
False

**MEASURE 3 TYPE:**
Direct

**MEASURE 3 RESULTS:**
Result: _____% of students answered question correctly.

**FINDINGS**
Aggregate data indicates that 58% (mean of the mean) of students answered questions correctly.

**TARGET LEVEL ACHIEVEMENT**
Not Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.*

**WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**
Students demonstrated best understanding of ventilation perfusion coupling, but even for this goal was not met.

**WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**
Students demonstrated least understanding of mechanisms that are responsible for keeping the lungs against the thoracic walls.

**ADDITIONAL COMMENTS:**
Better data collection will provide more reliable results.

1. Faculty will meet and devise plan to improve instruction of mechanisms that prevent lung collapse.
2. Faculty will meet and devise plan to improve instruction of ventilation perfusion coupling.
3. Faculty will meet and devise plan to improve instruction of ventilation pressures.

**CHANGE METHODS OF DATA COLLECTION**
Planned Changes

**DESCRIBE CHANGES**
Facultly will meet and devise plan for improving instruction.

**PERSON/ GROUP RESPONSIBLE FOR ACTION**
Biology Anatomy and Physiology Professors.

**TARGET DATE FOR IMPLEMENTATION OF THE ACTION**
08/14/2017

**PRIORITY**
High
Course Outcome

Describe the process of gaseous exchange and transport, and interrelationships with the circulatory system.

AY 2017-2018

MEASURE 1:

Goal: 70% of students queried will answer question correctly.

Which mechanism is most responsible for keeping the lungs against the thoracic walls and preventing lung collapse?

a. Surface tension
b. Connective tissues
c. Differences in pressure
d. Respiratory adhesion
e. Surfactant

MEASURE 1 TYPE: Direct

MEASURE 1 RESULTS: Result ____ % of students answered question correctly.

MEASURE 2:

Goal: 70% of students queried will answer question correctly.

Ventilation perfusion coupling means that more blood flows past functional alveoli than past non-functional alveoli.

a. True
b. False

MEASURE 2 TYPE: Direct

MEASURE 2 RESULTS: Result: ___ % of students answered question correctly.

MEASURE 3:

Goal: 70% of students queried will answer question correctly.

Complete the following statement using the choices below.

a. Air moves out of the lungs when the pressure inside the lungs is
b. less than the pressure in the atmosphere.
c. greater than the pressure in the atmosphere.
d. equal to the pressure in the atmosphere.
e. greater than the intra-alveolar pressure.

MEASURE 3 TYPE: Direct

MEASURE 3 RESULTS: Result: ___ % of students answered question correctly.

FINDINGS

Students were ____ % (mean of the mean) successful in answering questions. Better data collection will provide more reliable results. Not all students were queried.

TARGET LEVEL

ACHIEVEMENT

Partially Met

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Students demonstrated

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Students demonstrated
<table>
<thead>
<tr>
<th>MEASURES?</th>
<th>ADDITIONAL COMMENTS:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not all students were queried. Better data collection will provide more reliable results.</td>
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</table>

<table>
<thead>
<tr>
<th>CHANGE METHODS OF DATA COLLECTION</th>
<th>DESCRIBE CHANGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planned Changes</td>
<td>Better methods of data collection will provide more reliable results.</td>
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<table>
<thead>
<tr>
<th>PERSON/ GROUP RESPONSIBLE FOR ACTION</th>
<th>TARGET DATE FOR IMPLEMENTATION OF THE ACTION</th>
<th>PRIORITY</th>
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<tbody>
<tr>
<td>Biology Anatomy and Physiology Professors.</td>
<td>08/14/2017</td>
<td>High</td>
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</table>
## BUA 100 Gier Assessment Plan Data

### Course Outcome

2.1 Develop an understanding of the U.S. system of business.

### AY 2017-2018

<table>
<thead>
<tr>
<th>MEASURE 1:</th>
<th>Students will be able to write the three major activities of business. 80% of the students will get 66% of the question correct.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEASURE 1 TYPE:</td>
<td>Direct</td>
</tr>
<tr>
<td>MEASURE 1 RESULTS:</td>
<td>88% of the students got at least 66% of the question correct. This objective was met.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MEASURE 2:</th>
<th>Students will be able to write the definition of Capitalism. 80% of the students will get 50% of the question correct.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEASURE 2 TYPE:</td>
<td>Direct</td>
</tr>
<tr>
<td>MEASURE 2 RESULTS:</td>
<td>66% of the students got at least 50% of the question correct. Objective not met.</td>
</tr>
</tbody>
</table>

### FINDINGS

Students had a good grasp on what the three major activities of business are, and the measure objective was met. However, the measure objective for the definition of capitalism was not mastered as well by the class as a whole.

### TARGET LEVEL ACHIEVEMENT

Partially Met

**IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.**

Further Action Planned

### WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

I was able to see that students did not have the concept of capitalism mixed up with the concept of free market. The students who were able to provide a definition of capitalism did so very well. It seemed to be an all or nothing answer. Students who did not do well did not have any answer that remotely reflected the correct definition of it.

### WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Well, I was under the impression that the class had gone over the concept of capitalism many times, however, apparently we did not go over it enough.

### COLLECT AND ANALYZE

Planned Changes

1. After viewing these results, I am going to spend more time on the concept of capitalism. I will perform formative assessment more frequently on this topic. Something else I will do is ask students to contrast capitalism, socialism, and communism in hopes that they gain a better grasp on what capitalism is.
I plan on performing formative assessments on a more frequent basis. Also, I am going to have students give oral presentations on capitalism, socialism, and communism.

Anthony Gier

08/21/2018

High

2.2 Gain an appreciation of the complex nature of business and its functions.

MEASURE 1:
Students will be able to write the definition of a business plan. 80% of the students will get 50% of the question correct.

MEASURE 1 TYPE:
Direct

MEASURE 1 RESULTS:
66% of the students got at least 50% of this question correct. Objective not met.

MEASURE 2:
Students will be able to write the seven components of a business plan. 80% of the students will get 70% of the question correct.

MEASURE 2 TYPE:
Direct

MEASURE 2 RESULTS:
88% of students got at least 70% of this question correct. Objective met.

As far as the findings for the definition of business plan, most students have an idea of what a business plan is, however, some of them are unable to write out the full definition of it. It is a lengthy definition. However, most of them did have an idea of what it is and were able to put it on paper.

In regards to the seven components of a business plan. students did fairly well. I attribute this to the fact it is a list that we covered many times in class. Students also were required to give a PowerPoint presentation on a business plan. I think this helped them to remember what the seven components are.

Partially Met

Students had an easier time recalling the seven components of a business plan as compared to remembering the actual full definition of what a business plan is.
LIKE TO PROVIDE AN
OVERALL SUMMARY OF
YOUR FINDINGS FOR THE
COURSE/PROGRAM/
DEPARTMENT BEING
ASSESSED.)

WHAT STRENGTHS WERE
DISPLAYED THROUGH THE
ASSESSMENTS OF YOUR
MEASURES?

Students did very well at remembering and writing the seven components of a business plan.

WHAT WEAKNESSES WERE
DISPLAYED THROUGH THE
ASSESSMENTS OF YOUR
MEASURES?

Some students have difficulty at writing the full definition of business plan.

1. I believe the main thing to work on here is the definition of business plan. In addition to going over the definition of it with students. I am going to chunk the definition down and go it piece by piece. Hopefully unpacking it like that will help students to remember the definition.

COLLECT AND ANALYZE
ADDITIONAL DATA AND
INFORMATION

Planned Changes

CHANGE METHODS OF DATA
COLLECTION

Planned Changes

DESCRIBE CHANGES

I am going to go over the definition with students and have them explain each part of the definition to me in front of the class. Also, I am going to have them go over it in groups and have them explain it in their own words to the class. I will be watching/listening to make sure they are covering all parts of the definition.

PERSON/ GROUP
RESPONSIBLE FOR ACTION

Anthony Gier

TARGET DATE FOR
IMPLEMENTATION OF THE
ACTION

08/21/2018

PRIORITY

High

Course Outcome

2.3 Learn to use independent thought and reasoning in their understanding and approach to business.

AY 2017-2018

MEASURE 1:

Students will be able to read a scenario and choose the correct organizational structure along with an explanation about liability. 80% of the students will get 100% of the question correct.

MEASURE 1 TYPE:

Direct
MEASURE 1 RESULTS: 88% of students got 100% of the question correct.

MEASURE 2: Students will be able to write a marketing mix plan for high-end consumers. 80% of the students will get 75% of the question correct.

MEASURE 2 TYPE: Direct

MEASURE 2 RESULTS: 66% of students got at least 75% of this task correct.

FINDINGS

Students did very well at choosing the correct business structure for a given business type and were able to correctly articulate its liability. I am not surprised at this result since we covered it so often in class and looked at real world scenarios.

In regards to creating a marketing mix plan for high-end consumers, not as many students did as well as I had hoped. Some students could not even recall what a marketing mix is and as a result they were not able to create one related to a particular target market.

TARGET LEVEL ACHIEVEMENT

Partially Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

OVERALL SUMMARY OF FINDINGS

Students seemed to understand various business entities and liability associated with each. However, students had not mastered marketing mix well enough to apply it to creating one for a particular market.

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Students understand types of business structures and the amount of liability that goes with each.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Some students had difficulty knowing what a marketing mix is and how to create one using a target market.

1. More time will need to be spent on what marketing mix is and how to create one with a target market in mind. I am going to spend more time having students work in groups working on tasks related to this. Also, I am going to spend more time asking students what a marketing mix is and how to create on with a target market in mind and present to the class. This is something that will not take too much time.

COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION

Planned Changes
DESCRIBE CHANGES
I am going to spend more time on these topics. I will do this by having students work in groups more and present to the class.

PERSON/ GROUP RESPONSIBLE FOR ACTION
Anthony Gier

TARGET DATE FOR IMPLEMENTATION OF THE ACTION
08/21/2018

PRIORITY
High

Course Outcome
2.4 Learn the effects of government, social pressures, individual actions, world conditions, etc. on business and how it functions.

AY 2017-2018

MEASURE 1:
Students will be able to write the definition of the American with Disabilities Act (ADA) and at least one example of how it effects business.
80% of the students will get 50% of the question correct.

MEASURE 1 TYPE:
Direct

MEASURE 1 RESULTS:
88% of students were able to get at least 50% of this question correct.

MEASURE 2:
Students will be able to write the definition of Title VII of the Civil Rights Act of 1964 and at least one example of how it effects business.
80% of the students will get 50% of the question correct.

MEASURE 2 TYPE:
Direct

MEASURE 2 RESULTS:
88% of students were able to get at least 50% of this question correct.

FINDINGS
In both measurements, 88% of students were able to get at least 50% of the question correct. My personal goal is for 100% of students to achieve this, however, 88% (8 out of 9 students) achieving this is acceptable.

TARGET LEVEL ACHIEVEMENT
Met

OVERALL SUMMARY OF FINDINGS
8 out of 9 (88%) of students met this objective.
WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

For the most part students knew what each law is and were able to articulate it in written form. Some of them were even able to give an example of how each effects business.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Some students had difficulty coming up with an example of how each of the two laws effects businesses.

1. Students did well on knowing what the definitions of the laws are. However, I think I need to go over additional examples with future classes on how these laws effect businesses. I can also have students work in small groups and have them share with the class ways these laws effect business.

COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION

Planned Changes

DESCRIBE CHANGES

I am going to have students do additional work on how these laws effect businesses. I will discuss it more with students, and I will have students provide examples to the class via oral presentations. Students will do this alone and in small groups.

PERSON/GROUP RESPONSIBLE FOR ACTION

Anthony Gier

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

08/21/2018

PRIORITY

High
BUA 220 Assessment Plan Data

Course Outcome
Describe and understand the law and legal issues of business.

AY 2017-2018

MEASURE 1:
Measure of instrument will be an essay article related to business law. Student will find a business article relating to law or regulation issue and write an essay by applying legal concepts learned from the course.

See Attachment: BUA 220 Article Matrix for grading.

MEASURE 1 RESULTS:
75% of the class needs to receive 80% or above on the essay to be considered passing.
See Attachment: Assessment Graph 1 BUA-220 for final results.

EVIDENCE ATTACHMENTS:
Assessment Graph 1 BUA-220.docx
BUA 220 Article Matrix.docx

FINDINGS
BUA 220 Legal Environment Summer 2017
One course consisting of 16 students contributed towards the assessment on the essay article. The following scores are listed below:
16 students scored 20 out of 20 points on the article
Results: 100% of the students passed with a score 80% or higher in their essay article. Therefore, the result exceeds the measurement by 25% of the class passing.

BUA 220 Legal Environment Fall 2017
Three courses consisting of 47 students contributed towards the assessment on the essay article. The following scores are listed below:
38 students scored 20 out of 20 points on the article
6 student scored 17 out of 20 points
1 student scored 15 out of 20 points
2 students scored 14 out of 20 points
Results: Only 3 out of 47 students scored below the 80% on the essay article. Thus, 94% of the students passed with a score 80% or higher in their essay article. Therefore, the result exceeds the measurement by 19% of the class passing.

BUA 220 Legal Environment Spring 2018
Four courses consisting of 51 students contributed towards the assessment on the essay article. The following scores are listed below:
37 students scored 20 out of 20 points on the article
1 student scored 19 out of 20 points
1 student scored 18 out of 20 points
1 student scored 17.5 out of 20 points
4 students scored 17 out of 20 points
1 student scored 16.5 out of 20 points
2 students scored 16 out of 20 points
1 student scored 15 out of 20 points
1 student scored 10 out of 20 points
1 student scored 8 out of 20 points
1 student scored 6 out of 20 points

**Results:** Only 4 out of 51 students scored below the 80% on the essay article. Thus, 92% of the students passed with a score 80% or higher in their essay article. Therefore, the result exceeds the measurement by 17% of the class passing.

**TARGET LEVEL**

**ACHIEVEMENT**

Met

**WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

The assessment results of the essay article in the Summer of 2017, Fall of 2017 and Spring of 2018 indicates the majority of the classes were passing the measurement requirements and exceeding between 17% and 25%. This signifies students understand the material and meeting the expectations of the article format as prescribed to them.

**WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

None.

1. No recommendation is needed. Based on the results and analysis of this assessment, it is within desire parameters.

**COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION**

**Planned Changes**

**DESCRIBE CHANGES**

Continue to collect data in the next cycle and verified the results. If the results indicate a decline, I would address the issue accordingly.

**PERSON/ GROUP RESPONSIBLE FOR ACTION**

Moses Diaz de Leon

**Course Outcome**

Understanding the U.S. judicial system and learn to interpret federal/state judicial opinion cases.

**AY 2017-2018**

**MEASURE 1:**

Measure of instrument will be a case assignment related to a business tort. The student will be assigned a case study from the text and interpret a judicial opinion case. Student will be required to follow the case format matrix as attached below. Additionally, student will answer the case questions listed in the case study.

See Attachment: BUA 220 Case Matrix for grading.

**MEASURE 1 RESULTS:**

70% of the class needs to receive 70% or above on the case assignment to be considered passing.

See Attachment: Assessment Graph 2 BUA-220 for final results.

**EVIDENCE ATTACHMENTS:**

Assessment Graph 2 BUA-220.docxBUA 220 Case Matrix.docx
FINDINGS

Assessment Plan Information:

BUA 220 Legal Environment Summer 2017
One course consisting of 18 students contributed towards the assessment. The following scores are listed below:

10 students scored 10 out of 10 points on the case study
2 students scored 9 out of 10 points
1 student scored 8 out of 10 points
1 student scored 7.5 out of 10 points
1 student scored 7 out of 10 points
1 student scored 6.5 out of 10 points
1 student scored 6 out of 10 points
1 student scored 5 out of 10 points
1 student scored 3.5 out of 10 points

Results: Only 3 out of 18 students scored below the 70% on the case study Thus, 83% of the students passed with a score 70% or higher in their case study. Therefore, the result exceeds the measurement by 13% of the class passing.

BUA 220 Legal Environment Fall 2017
Three courses consisting of 50 students contributed towards the assessment. The following scores are listed below:

29 students scored 10 out of 10 points on the case study
6 students scored 9 out of 10 points
3 students scored 8.5 out of 10 points
3 student scored 8 out of 10 points
3 student scored 7.5 out of 10 points
2 students scored 7 out of 10 points
1 students scored 6.5 out of 10 points
3 students scored 3 out of 10 points

Results: Only 4 out of 50 students scored below the 70% on the case study Thus, 92% of the students passed with a score 70% or higher in their case study. Therefore, the result exceeds the measurement by 22% of the class passing.

BUA 220 Legal Environment Spring 2018
Four courses consisting of 53 students contributed towards the assessment. The following scores are listed below:

30 students scored 10 out of 10 points on the case study
2 students scored 9 out of 10 points
7 students scored 8.5 out of 10 points
1 students scored 8 out of 10 points
1 students scored 7.5 out of 10 points
2 students scored 7 out of 10 points
1 students scored 6.5 out of 10 points
2 students scored 6 out of 10 points
1 students scored 5.5 out of 10 points
4 student scored 4 out of 10 points
2 students scored 3.5 out of 10 points

Results: Only 10 out of 53 students scored below the 70% on the case study Thus, 81% of the students passed with a score 70% or higher in their case study. Therefore, the result exceeds the measurement by 11% of the class passing.

TARGET LEVEL
ACHIEVEMENT

Met
The assessment results of the case study in the Summer of 2017, Fall of 2017 and Spring of 2018 indicates the majority of the classes were passing the measurement requirements and exceeding between 11% and 22%. This signifies students understand the material and meeting the expectations of the case study format as prescribed to them.

**WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

None.

**WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

<table>
<thead>
<tr>
<th>Measure 1</th>
<th>Measurement of instrument will be an essay question. Student will answer the essay question by determining the ethics of a business and identify some examples of social responsibility taken by the business.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure 1 Results</td>
<td>70% of the class needs to receive 70% or above on the essay question to be considered passing.</td>
</tr>
</tbody>
</table>

**Person/Group Responsible for Action**

- Moses Diaz de Leon

**Plan and Analyze Additional Data and Information**

Planned Changes

| Describe Changes | Continue to collect data in the next cycle and verified the results. If the results indicate a decline, I would address the issue accordingly. |

**Course Outcome**

- Understand the functions of ethics and social responsibility in a business environment.

**AY 2017-2018**

**Evidence Attachments:**

- Assessment Graph 3 BUA-220 BUA 220 Essay Matrix.docx

**Findings**

**BUA 220 Legal Environment Summer 2017**

One course consisting of 15 students contributed towards the assessment. The following scores are listed below:

- 9 students scored 5 out of 5 points on the essay question
- 2 students scored 4 out of 5 points
- 1 students scored 3 out of 5 points
- 1 students scored 2.5 out of 5 points
- 1 students scored 2 out of 5 points
1 students scored 1 out of 5 points

**Results:** Only 4 out of 15 students scored below the 70% on the essay question. Thus, 73% of the students passed with a score 70% or higher in their essay question. Therefore, the result exceeds the measurement by 3% of the class passing.

**BUA 220 Legal Environment Fall 2017**

Two courses consisting of 41 students contributed towards the assessment. The following scores are listed below:

- 29 students scored 5 out of 5 points on the essay question
- 1 students scored 4.5 out of 5 points
- 4 students scored 4 out of 5 points
- 2 students scored 3 out of 5 points
- 2 students scored 2.5 out of 5 points
- 2 student scored 2 out of 5 points
- 1 student scored 1 out of 5 points

**Results:** Only 7 out of 41 students scored below the 70% on the essay question. Thus, 83% of the students passed with a score 70% or higher in their essay question. Therefore, the result exceeds the measurement by 13% of the class passing.

**BUA 220 Legal Environment Spring 2018**

Four courses consisting of 57 students contributed towards the assessment. The following scores are listed below:

- 34 students scored 5 out of 5 points on the essay question
- 6 student scored 4.5 out of 5 points
- 4 students scored 4 out of 5 points
- 3 student scored 3 out of 5 points
- 7 students scored 2.5 out of 5 points
- 1 student scored 2 out of 5 points
- 2 students scored 1.5 out of 5 points

**Results:** Only 13 out of 57 students scored below the 70% on the essay question. Thus, 77% of the students passed with a score 70% or higher in their essay question. Therefore, the result exceeds the measurement by 7% of the class passing.

**TARGET LEVEL**

**ACHIEVEMENT**

Met

**WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

The assessment results of the essay question in the Summer of 2017, Fall of 2017 and Spring of 2018 indicates the majority of the classes were passing the measurement requirements and exceeding between 3% and 13%. This signifies students understand the material and meeting the expectations when answering the essay question.

**WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

None.

**1.**

No recommendation is needed. Based on the results and analysis of this assessment, it is within desire parameters.

**COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION**

Planned Changes

**DESCRIBE CHANGES**

Continue to collect data in the next cycle and verified the results. If the results indicate a decline, I would address the issue accordingly.
| PERSON/GROUP RESPONSIBLE FOR ACTION | Moses Diaz de Leon |
CHM 130 Assessment Plan Data

Course Outcome

Successful conversion of various measured units (length, mass, pressure, and energy).

AY 2017-2018

MEASURE 1:

The average student score (N = 55) on the following Sapling Learning online homework questions will be 75% or higher:

HW 1-22)

Convert 6.36 km to centimeters.

\[
\text{Number} \quad \text{cm}
\]

HW 1-23)

Convert the following volume to its equivalent in milliliters:

\[
61.0 \quad \mu L = \quad \text{mL}
\]

HW 1-23)
HW 1-26)

A certain hybrid car has a mileage rating of 53 miles per gallon. If the car makes a trip of 273 miles, how many gallons of gasoline will be used?

\[
\text{Number} \quad \text{gallons}
\]

HW 2-3)
HW 7-1)

MEASURE 1 TYPE: Direct

MEASURE 1 RESULTS:

Convert 912 Torr to atmospheres.
Number
atm

Convert 20.0 atmospheres to torr.
Number
Torr

Convert 912 mmHg to atmospheres.
Number
atm

Convert 760 Torr to millimeters of mercury.
Number
mmHg

Convert the following energy units.

a) 547 kJ to J
Number
J

b) 3.40 \times 10^3 \text{ kcal} \text{ to kJ}
Number
kJ

c) 5.32 \times 10^6 \text{ J} \text{ to kcal}
Number
kcal
MEASURE 2:

The average student score (N ~ 55) on the following exam questions will be 60% or higher:

Exam 1:5) Convert 453.4 kg to pounds.
- 453.4 pounds
- 205.6 pounds
- 1999 pounds
- 999.7 pounds

Exam 1:8) If the pressure is 466 mm Hg, what is this in psi?
- 0.0486 psi
- 24093 psi
- 45.8 psi
- 9.01 psi

Exam 1: Short Answer 1b) Convert 2.25 ft to cm. (3 pts)

Exam 1: Short Answer 4d) Circle the best answer: If you're unit converting, the larger unit needs to be a larger / smaller number than the smaller unit. (1 pt)

Exam 3:1) Convert 48.63 J to cal.
- 48.63 cal
- 0.08604 cal
- 203.5 cal
- 11.62 cal

MEASURE 2 TYPE: Direct

MEASURE 2 RESULTS:
MEASURE 3:
The average student score (N ~ 55) on the following final exam questions will be 60% or higher:

Final: 9) Convert 180 pounds to grams.
   - 180 grams
   - 70.87 grams
   - 0.3965 grams
   - 81720 grams

Final: Short Answer 1c) Based on your answer in 1a (in grams), how many mg of mercury do you have? (3 pts)

MEASURE 3 TYPE: Direct
MEASURE 3 RESULTS:

FINDINGS

<table>
<thead>
<tr>
<th>Question Number</th>
<th>% Score</th>
<th>Benchmark</th>
<th>Passed Benchmark?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final / 9</td>
<td>87.32258065</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final / 1c</td>
<td>46.80107527</td>
<td></td>
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</tr>
</tbody>
</table>

Outcome 1 % Scores from the Final

Outcome 1 % Scores from Exams
Target Level Achievement

**What Strengths Were Displayed Through the Assessments of Your Measures?**

Due to the % range (67.08% - 99.4% for Sapling Homework, 60.1% - 95.26% for exam questions, and 46.3% / 87.32% for final questions), the students seem to understand the process for converting between units, regardless for which units are given. Two of the questions in all of the measures fell below the benchmark (HW 7-1, on converting energy units; and Final / 1c, on metric conversion). Student responses to HW 7-1 showed most students could accomplish the 1st 2 questions (both single unit conversions), but had difficulty on the last question (which was a double unit conversion, something I didn't teach about). The main issue with Final / 1c was not showing work.

Two other questions (Exam 1/5 and Exam 1/8) were close to the benchmark of 60. The main error for each was inverting their calculations (which were corrected on subsequent exams).

Despite these, and the fact that it was assessed multiple times (2 different exams and the final) and is a technique used throughout CHM 130 (with many different units), this is one of the strongest (if not the actual strongest) measure of student success in CHM 130.

**What Weaknesses Were Displayed Through the Assessments of Your Measures?**

In measure 1, even though the students scored high on the assessments (67.08% - 99.4%), the percentages were based on the number of correct and incorrect students (i.e. students who attempted the question). Students who didn't attempt the question were ignored, because it is difficult to determine the reason the student didn't do the question (examples include couldn't finish before due date, the question looked hard, and/or the student dropped the class). Thus, the % score could be less.

**Additional Comments:**

The benchmark for the Exam and Final questions was set at 60%, which is the lowest score a student can attain and achieve a passing score in CHM 130. The benchmark for the Sapling Learning homework questions was arbitrarily set at 75%, due to the assumption that the student would have more time and resources to correctly answer this assessment.

Sapling Homework results were downloaded directly from their website (saplinglearning.com) and compiled on a spreadsheet. The %'s given take into account the number of students correct and incorrect on a question. Exam and final questions were a mixture of multiple choice (2 pts for correct, 0 for incorrect) and short answer (based on how correct the student was).

1. Encourage students to finish their assessments as early as possible.
2. As this is a hybrid class relying on online lectures, a reminder of this and the difficulty involved would be useful.
3. Despite the high %range, it is always a good idea to find ways to improve the teaching of this subject (unit conversion), especially placing them in context with the rest of chemistry.

**Collect and Analyze Additional Data and Information**

Planned Changes

**Change Methods of Data Collection**

Planned Changes

**Describe Changes**

Encouragement to finish assessments as early as possible (more reminders of
due dates, for example), a reminder / intro into hybrid classes, and placing unit conversion in context with the rest of chemistry.

**PERSON/GROUP RESPONSIBLE FOR ACTION**
Robert Killin

**TARGET DATE FOR IMPLEMENTATION OF THE ACTION**
12/31/2018

**PRIORITY**
High

**Course Outcome**
Successful manipulation of chemical equations, specifically balancing them.

**AY 2017-2018**

**MEASURE 1:**
The average student score (N ~ 55) on the following Sapling Learning online homework questions will be 75 % or higher:

HW 6-4)

Balance the following equations by inserting the appropriate coefficients:

\[ \text{P}_4 + \text{O}_2 \rightarrow \text{P}_4\text{O}_5 \]

Tip: If you need to click the button to balance the equation.

\[ \text{C}_2\text{H}_6 + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O} \]

HW 6-5)

Balance the following equations by inserting coefficients as needed.

1. \[ \text{C}_3\text{H}_6 + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O} \]

2. \[ \text{P}_4\text{O}_{10} + \text{H}_2\text{O} \rightarrow \text{H}_3\text{PO}_4 \]

HW 6-6)

Balance the following equations by inserting coefficients as needed.

1. \[ \text{CaCO}_3 + \text{HCl} \rightarrow \text{CaCl}_2 + \text{CO}_2 + \text{H}_2\text{O} \]

2. \[ \text{C}_6\text{H}_12\text{O}_2 + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O} \]
Balance the following equation by inserting coefficients as needed.

\[ \text{AI}_3\text{C}_2 + \text{HCl} \rightarrow \text{AlCl}_3 + \text{CH}_4 \]

HW 6-7)

Balance the following equations by inserting coefficients as needed.

1. \( \text{H}_2\text{S} + \text{LiOH} \rightarrow \text{Li}_2\text{S} + \text{H}_2\text{O} \)
2. \( \text{SO}_3 + \text{O}_2 \rightarrow \text{SO}_4 \)

HW 6-8)

Balance the following equations by inserting coefficients as needed.

1. \( \text{PCl}_3 + \text{Cl}_2 \rightarrow \text{PCl}_5 \)
2. \( \text{Mg}_3\text{N}_2 + \text{HCl} \rightarrow \text{MgCl}_2 + \text{NH}_3 \)

HW 6-9)

HW 10-3)

What is the daughter nucleus (nuclide) produced when \( ^{213}\text{Bi} \) undergoes alpha decay?

Replace the question marks with the proper integers or symbols.

HW 10-4)

What is the daughter nucleus (nuclide) produced when \( ^{90}\text{Sr} \) undergoes beta decay by emitting an electron?

Replace each question mark with the appropriate integer or symbol.

HW 10-5)

What is the daughter nucleus produced when \( ^{80}\text{Sr} \) undergoes positron emission?

Replace each question mark with the appropriate integer or symbol.

How many neutrons are needed to initiate the fission reaction shown?

\[ _{92}^{235}\text{U} + _0^1\text{n} \rightarrow _{38}^{90}\text{Sr} + _{40}^{135}\text{Xe} + _0^1\text{n} \]

Number

\( \square \) neutron(s)
Complete these nuclear reactions.

\[ ^1H \rightarrow ^1H + \square \]

\[ ^{61}_{29}Cu \rightarrow ^{61}_{36}Zn + \square \]

\[ ^{208}_{84}Po \rightarrow ^{204}_{82}Pb + \square \]

HW 10-9)

MEASURE 1 TYPE: Direct

MEASURE 1 RESULTS:

MEASURE 2:

Exam 2: 10) In the unbalanced equation \( Al + CuSO_4 \rightarrow Al_2(SO_4)_3 + Cu \), what is the coefficient of \( Cu \) when the equation is balanced?

- 1
- 2
- 3
- 4

Exam 2: 3 (short answer))

Balance the equation \( Co_2O_3 + C \rightarrow Co + CO_2 \) (2 pts)

MEASURE 2 TYPE: Direct

MEASURE 2 RESULTS:
MEASURE 3:

The average student score (N ~ 55) on the following final exam questions will be 60 % or higher:

Final:11) After you balance the equation Na₃PO₄ + Al₂(SO₄)₃ \rightarrow AlPO₄ + Na₂SO₄, how many AlPO₄’s are there?

- 1
- 2
- 3
- 4

Final: Short Answer 2a) Balance the equation Ba(NO₃)₂ + BCl₃ \rightarrow BaCl₂ + B(NO₃)₃ (2 pts)

Note: the question below is actually Final / 34

Final / 32) \( ^{235}_{92}U \rightarrow ? + \frac{4}{2}He \)

a. \( ^{235}_{92}U \)

b. \( ^{231}_{90}Th \)

c. \( ^{233}_{90}Th \)

d. \( ^{225}_{93}Np \)

MEASURE 3 TYPE:

Direct

MEASURE 3 RESULTS:
**FINDINGS**

<table>
<thead>
<tr>
<th>Question Number</th>
<th>% Score</th>
<th>Benchmark</th>
<th>Passed Benchmark?</th>
</tr>
</thead>
<tbody>
<tr>
<td>HW 6-4</td>
<td>87.41</td>
<td>75</td>
<td>Y</td>
</tr>
<tr>
<td>HW 6-5</td>
<td>87.2</td>
<td>75</td>
<td>Y</td>
</tr>
<tr>
<td>HW 6-6</td>
<td>87.7</td>
<td>75</td>
<td>Y</td>
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<tr>
<td>HW 6-7</td>
<td>99.6</td>
<td>75</td>
<td>Y</td>
</tr>
<tr>
<td>HW 6-8</td>
<td>91.11</td>
<td>75</td>
<td>Y</td>
</tr>
<tr>
<td>HW 6-9</td>
<td>95.04</td>
<td>75</td>
<td>Y</td>
</tr>
<tr>
<td>HW 10-3</td>
<td>70.8</td>
<td>75</td>
<td>N</td>
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<tr>
<td>HW 10-4</td>
<td>72.53</td>
<td>75</td>
<td>N</td>
</tr>
<tr>
<td>HW 10-5</td>
<td>84.35</td>
<td>75</td>
<td>Y</td>
</tr>
<tr>
<td>HW 10-8</td>
<td>80.49</td>
<td>75</td>
<td>Y</td>
</tr>
<tr>
<td>HW 10-9</td>
<td>78.6</td>
<td>75</td>
<td>Y</td>
</tr>
<tr>
<td>Exam 2-10</td>
<td>57.61</td>
<td>60</td>
<td>N</td>
</tr>
<tr>
<td>Exam 2 - 3a</td>
<td>73.71</td>
<td>60</td>
<td>Y</td>
</tr>
<tr>
<td>Final – 11</td>
<td>70.71</td>
<td>60</td>
<td>Y</td>
</tr>
<tr>
<td>Final - 2a</td>
<td>77.6</td>
<td>60</td>
<td>Y</td>
</tr>
<tr>
<td>Final - 34</td>
<td>80.89</td>
<td>60</td>
<td>Y</td>
</tr>
</tbody>
</table>

**TARGET LEVEL ACHIEVEMENT**

Met

**WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

Due to the % range (70.8% - 99.6% for Sapling Homework, 57.61% / 73.71% for exam questions, and 70.71% - 80.89% for final questions), the students seem to understand the process for balancing chemical equations. Along with the fact that it was assessed multiple times (2 different exams and the final), this is a strong measure of student success in CHM 130.

**WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

In measure 1, even though the students scored high on the assessments (70.8% - 99.6%), the percentages were based on the number of correct and incorrect students (i.e. students who attempted the question). Students who didn't attempt the question were ignored, because it is difficult to determine the reason the student didn't do the question (examples include couldn't finish before due date, the question looked hard, and/or the student dropped the class). Thus, the % score could be less.

An important point is that this outcome had the 2 homework problems (HW 10-3 and 10-4) and Exam 2 / 10 below the benchmark. The homework scores were a result of students running out of time at the end of the semester. (Side note: 10-5, 10-8, and 10-9 have higher scores, because many of the students who attempted / had trouble with 10-3 and 10-4 did not attempt any more questions and thus were not counted in attempting the other questions.) Exam 2 / 10 was a result of random guessing (although later in the exam in 2 / 3a, the students did a much better job).

A final note is that the total number of assessed questions (2 on exam 3, 4 on the final) is smaller than the other outcomes. Part of the reason for this is the nuclear reactions is...
introduced in the last section of lecture and is not assessed until the final (due to the length of
the previous sections assessed in Exam 3).

ADDITIONAL COMMENTS:
The benchmark for the Exam and Final questions was set at 60%, which is the
lowest score a student can attain and achieve a passing score in CHM 130.
The benchmark for the Sapling Learning homework questions was arbitrarily
set at 75%, due to the assumption that the student would have more time and
resources to correctly answer this assessment.
Sapling Homework results were downloaded directly from their website
(saplinglearning.com) and compiled on a spreadsheet. The %'s given take
into account the number of students correct and incorrect on a question.
Exam and final questions were a mixture of multiple choice (2 pts for correct, 0
for incorrect) and short answer (based on how correct the student was).

1. Encourage students to finish their assessments as early as possible.
2. As this is a hybrid class relying on online lectures, a reminder of this and the
difficulty involved would be useful.
3. Despite the high %range, it is always a good idea to find ways to improve the
teaching of this subject (unit conversion), especially placing them in context
with the rest of chemistry.

COLLECT AND ANALYZE
ADDITIONAL DATA AND
INFORMATION
Planned Changes

CHANGE METHODS OF DATA
COLLECTION
Planned Changes

DESCRIBE CHANGES
Encouragement to finish assessments as early as possible (more reminders of
due dates, for example), a reminder / intro into hybrid classes, and placing
balancing chemical equations in context with the rest of chemistry.

PERSON/ GROUP RESPONSIBLE
FOR ACTION
Robert Killin

TARGET DATE FOR
IMPLEMENTATION OF THE
ACTION
12/31/2018

PRIORITY
High

Course Outcome
Successful usage of the Periodic Table to determine the
characteristics of atoms.

AY 2017-2018

MEASURE 1:
The average student score (N ~ 55) on the following Sapling Learning online homework
questions will be 75 % or higher:
HW 3-9)
The chemical symbol of several elements are given below. Determine the atomic number of each.

<table>
<thead>
<tr>
<th>Chemical Symbol</th>
<th>Atomic Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Li</td>
<td></td>
</tr>
<tr>
<td>Ba</td>
<td></td>
</tr>
<tr>
<td>Br</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td></td>
</tr>
</tbody>
</table>

HW 3-11)

How many protons, neutrons, and electrons are there in a neutral atom of \(^{113}\text{In}\) (Indium-113)?

- Protons
- Neutrons
- Electrons

HW 3-12)

Complete this table for neutral isotopes.

<table>
<thead>
<tr>
<th>Element</th>
<th>(77)</th>
<th>(65)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>(36)</td>
<td>(47)</td>
</tr>
<tr>
<td>Number</td>
<td>(36)</td>
<td>(36)</td>
</tr>
</tbody>
</table>

HW 3-13)

 Sapling Learning

Give the nuclear symbol for the isotope of gallium, Ga, that contains 40 neutrons per atom.

\(\text{Ga} \quad \text{Replace the question marks with the proper integers.}\)

HW 3-14)

 Sapling Learning

Give the nuclear symbol (isotope symbol) for the isotope of bromine, Br, that contains 46 neutrons.

\(\text{Br} \quad \text{Replace question marks with the proper integers.}\)

If necessary, use the button that looks like two red arrows to clear your changes and return the answer box to its original state.
Rank these elements according to atomic radius.

Largest radius

Smallest radius

Be, B, C, N, O, F, Ne, Li

HW 3-16)

Rank these elements according to first ionization energy.

Highest ionization energy

Lowest ionization energy

P, N, Sb, As

HW 3-17)

HW 4-1)

Metals and nonmetals can react with each other to form ions. Complete these statements.

A potassium atom Select answer to form a ion.

A sulfur atom Select answer to form a ion.

HW 4-2)
For each of the elements below, identify the charge of its most common ion.

<table>
<thead>
<tr>
<th>F</th>
<th>Li</th>
<th>Se</th>
<th>Al</th>
</tr>
</thead>
<tbody>
<tr>
<td>+3</td>
<td>+3</td>
<td>+3</td>
<td>+3</td>
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<tr>
<td>−3</td>
<td>−3</td>
<td>−3</td>
<td>−3</td>
</tr>
</tbody>
</table>

Rank these elements according to electronegativity.

Most electronegative

Least electronegative

Al Cs C Na F

HW 5-7)
HW 10-1)

Many hospitals, and some doctors' offices, use radioisotopes for diagnosis and treatment, or in palliative care (relief of symptoms such as pain). Some radioisotopes used in medicine are listed below.

Write the isotope symbol for each radioisotope. Replace the question marks with the proper integers. Replace the letter X with the proper element symbol.

a) Phosphorus-32:

\[ ^{32}X \]

b) Cobalt-60:

\[ ^{60}X \]

c) Yttrium-90:

\[ ^{90}X \]

HW 10-2)

Fill in the missing mass number and atomic number for each of these particles or types of radiation.

alpha (α)  beta (β)  gamma  neutron

\[ ^{2}He \]  \[ ^{3}e \]  \[ ^{3}Y \]  \[ ^{3}n \]

Tip: To restore a module to its original click the button that looks like two
MEASURE 2:

The average student score (N ~ 55) on the following exam questions will be 60 % or higher:

Exam 1-16) How many electrons does rhenium have if it has a mass number of 166?
- 75
- 91
- 241
- 166

Exam 1-18) How many neutrons does $^{98}$Tc have?
a. 98
b. 55
c. 43
d. 131

Exam 1-19) Which of the following has the largest atomic radii?
- Li
- Be
- B
- C

Exam 1-5(short))
Fill out the following table for two neutral atoms. (1 pt each)

<table>
<thead>
<tr>
<th>Elemental Name</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Elemental Symbol</td>
<td></td>
</tr>
<tr>
<td>Atomic Number</td>
<td>51</td>
</tr>
<tr>
<td>Mass Number</td>
<td>122</td>
</tr>
<tr>
<td>number of neutrons</td>
<td>29</td>
</tr>
<tr>
<td>number of electrons</td>
<td>26</td>
</tr>
<tr>
<td>number of protons</td>
<td></td>
</tr>
</tbody>
</table>

Exam 1-6a) Which of the following atoms has the… (1 pt each)
- ...larger atomic radii: Se or Br
- ...lower ionization energy: Se or Br

Exam 2-1) To become similar to a noble gas, an cation will ___ electrons, which results in the
cation having a ___ charge
• lose, positive
• lose, negative
• gain, negative
• gain, positive

Exam 2-4) Rb & P (choose the correct charge for each).

Exam 2-14) Thallium has ___ valence electrons.
• 3
• 4
• 5
• 6

Exam 2-2a) Draw the electron-dot structures for Bi, K, and Br. (3 pts)

MEASURE 2 TYPE:
Direct

MEASURE 2 RESULTS:

Outcome 2 % Scores on the Exams

<table>
<thead>
<tr>
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<th>70</th>
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<th>90</th>
<th>100</th>
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</tbody>
</table>

MEASURE 3:
The average student score (N ~ 55) on the following final exam questions will be 60 % or higher:

Final-5) How many neutrons does $^{195}$Pt have?
• 39
• 117
• 78
• 273

Final-6) A(n) ___ gains electrons, giving itself a ___ charge.
• cation, positive
• anion, positive
• cation, negative
• anion, negative

Final-6a) Draw the electron-dot structures for Si & Se. (2 pts)

MEASURE 3 TYPE:
Direct

MEASURE 3 RESULTS:
FINDINGS

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<thead>
<tr>
<th>Question Number</th>
<th>% Score</th>
<th>Benchmark</th>
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</table>

TARGET LEVEL ACHIEVEMENT

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

Partially Met

Further Action Planned

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Due to the % range (57.97% - 99.6% for Sapling Homework, 32.79% - 90.99% for exam questions, and 55.16% - 69.03% for final questions), the students seem to understand the general process for using the Periodic Table to determine the characteristics of atoms. In particular, valence electrons (Exam 2/14) and electron-dot structures (Exam 2/2a and Final/6a) were well-scored by students (the only issue being the difficulty in asking these questions in a short answer format).

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

In measure 1, even though the students scored high on the assessments (57.97% - 99.6%), the percentages were based on the number of correct and incorrect students (i.e. students who attempted the question). Students who didn't attempt the question were ignored, because it is difficult to determine the reason the student didn't do the question (examples include couldn't finish before due date, the question looked hard, and/or the student dropped the class). Thus, the % score could be less.
This outcome had a large number of measures below benchmark. The one homework problem (3-12) below 75% was a fill-box on using data on the Periodic Table to identify different elements. Many students had difficulty, compounded by similar exam questions 1/16 and 1/18. 1/19 and 1/6a are both on periodic trends, which most students went with the opposite answer to the correct one (i.e. the larger on instead of the smaller one).

ADDITIONAL COMMENTS:

The benchmark for the Exam and Final questions was set at 60%, which is the lowest score a student can attain and achieve a passing score in CHM 130. The benchmark for the Sapling Learning homework questions was arbitrarily set at 75%, due to the assumption that the student would have more time and resources to correctly answer this assessment. Sapling Homework results were downloaded directly from their website (saplinglearning.com) and compiled on a spreadsheet. The %'s given take into account the number of students correct and incorrect on a question. Exam and final questions were a mixture of multiple choice (2 pts for correct, 0 for incorrect) and short answer (based on how correct the student was).

1. Encourage students to finish their assessments as early as possible.
2. As this is a hybrid class relying on online lectures, a reminder of this and the difficulty involved would be useful.
3. Since this outcome had several measures below the benchmark, increased focus on certain topics would be helpful. For example, spending more time on the Periodic Table and showing all the different parts of it would be helpful.

COLLECT AND ANALYZE
ADDITIONAL DATA AND INFORMATION

Planned Changes

CHANGE METHODS OF DATA COLLECTION

Planned Changes

DESCRIBE CHANGES

Encouragement to finish assessments as early as possible (more reminders of due dates, for example), a reminder / intro into hybrid classes, and placing the Periodic Table to determine the characteristics of atoms in context with the rest of chemistry by spending more time on the topic in lab.

PERSON/ GROUP RESPONSIBLE FOR ACTION

Robert Killin

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

12/31/2018

PRIORITY

High

Course Outcome

Successful usage of the Periodic Table to determine the characteristics of multiple atoms / molecules.

AY 2017-2018

MEASURE 1:

The average student score (N ~ 55) on the following Sapling Learning online homework questions will be 75 % or higher:

HW 3-22)
Calculate the molar mass of each compound given below. Keep at least one decimal place in atomic masses from the periodic table.

a) KBr

Number

\text{g/mol}

b) K₂N

Number

\text{g/mol}

Determine the formula for potassium oxide.

What is the chemical formula for the compound formed between calcium and chlorine?

What is the chemical formula for the compound formed between calcium and oxygen?

Name the following compounds. Spelling counts!

\text{PCl}_5

\text{N}_2\text{O}_5

Write the formula for phosphorus pentachloride.
Draw the Lewis structure of the following molecule. Include lone pairs, if necessary.

\[ \text{SiH}_4 \]

Draw the Lewis structure of the following molecule. Include lone pairs.

\[ \text{NCl}_3 \]

HW 5-3)
HW 5-8)

For each compound below, click in the box to toggle the direction of bond polarity (leave the box blank for a nonpolar bond):

\[ \text{Br} - \text{Br} \quad \text{H} - \text{Cl} \quad \text{F} - \text{CH}_3 \]

HW 5-13)

If a solid line represents a covalent bond and a dotted line represents intermolecular attraction, which of these choices shows a hydrogen bond? Check all that apply.

- [ ] \[ \text{O} \cdots \text{H} \cdots \text{C} \]
- [ ] \[ \text{C} \cdots \text{H} \cdots \text{F} \]
- [ ] \[ \text{N} \cdots \text{H} \cdots \text{O} \]
- [ ] \[ \text{H} \cdots \text{H} \]
Identify the intermolecular forces present in each of these substances.

<table>
<thead>
<tr>
<th>Hydrogen bonding, dipole-dipole, and dispersion</th>
<th>Dipole-dipole and dispersion only</th>
<th>Dispersion only</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCl, NH₃, CO, CH₄</td>
<td></td>
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</tbody>
</table>

HW 5-14)

Calculate the percent composition by mass of each element in Al(OH)₃.
Use at least three significant figures.

% Al = □ □ %
% O = □ □ %
% H = □ □ %

HW 6-1)

MEASURE 1 TYPE: Direct
MEASURE 1 RESULTS:

% Score for All Attempts vs % Score for All Students - Outcome 3

MEASURE 2:
The average student score (N ~ 55) on the following exam questions will be 60 % or higher:

Exam 2-7) C₂O₁₀
- carbon oxide
- carbon decaoxide
- tetra carbon decaoxide
- tetra carbon oxide
Exam 2-9) What is the mass % of carbon in C₂H₆O?

- 52.2 %
- 47.8 %
- 34.8 %
- 100 %

Exam 2-16) What is the correct Lewis structure of NCl₃?

- a. 
- b. 
- c. 
- d. 

Exam 2-18) O-C

- polar covalent
- nonpolar covalent
- ionic
- ionic covalent

Exam 2-19) Which of the following has dipole – dipole as its intermolecular force?

- CH₃CH₃
- CH₃CH₂Br
- CH₃CH₂H
- CH₃CH₂OH

Exam 2-2b) Draw the complete Lewis structures for both BiBr₃ and H₂Te. (4 pts)

MEASURE 3:
The average student score (N ~ 55) on the following final exam questions will be 60 % or higher:

Final-14) What is the mass percent of oxygen in AIPO₄?

- 52.5 %
- 85.7 %
- 1.91 %
Final-17) C-S is a ___ bond.
- ionic
- polar covalent
- nonpolar covalent

Final-25) Which of the following would be the most likely to dissolve in water?
- oil
- CH₃CH₂CH₂CH₂
- CH₃CH₂CH₃
- CH₃CH₂OH

Final-6b) Draw the Lewis structure of NF₃, showing all of the lone pairs. (2 pts)

Outcome 3 % Scores on the Final

<table>
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<tr>
<th>Question Number</th>
<th>% Score</th>
<th>Benchmark</th>
<th>Passed Benchmark?</th>
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Target Level Achievement: Partially Met
*If less than met, program should plan further action: Further Action Planned
TO IMPROVE PERFORMANCE.

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Due to the % range (57.29% - 98.2% for Sapling Homework, 24.48% - 84.92% for exam questions, and 38.97% - 77.74% for final questions), the students seem to understand the process for using the Periodic Table to determine the characteristics of molecules. As this outcome was assessed multiple times (1 exam and the final, plus four separate homework assignments), this is a strong measure of student success in CHM 130.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

In measure 1, even though the students scored high on the assessments (57.29% - 98.2%), the percentages were based on the number of correct and incorrect students (i.e. students who attempted the question). Students who didn't attempt the question were ignored, because it is difficult to determine the reason the student didn't do the question (examples include couldn't finish before due date, the question looked hard, and/or the student dropped the class). Thus, the % score could be less.

An important overall point is that this outcome had the most questions below the benchmark (2 homework problems and 5 exam / final questions). In general, it suggests it would be a good idea of reinforce student learning about the Periodic Table throughout the semester. Specifically, Exam 2 / 2b and Final / 6b are similar in that both as about Lewis Structures, which cannot be drawn on BlackBoard (to answer the question, the student has to identify the number of bonds and lone pairs and choose the correct response; both of which are on drop-down menus and can be confusing for the student).

ADDITIONAL COMMENTS:

The benchmark for the Exam and Final questions was set at 60%, which is the lowest score a student can attain and achieve a passing score in CHM 130. The benchmark for the Sapling Learning homework questions was arbitrarily set at 75%, due to the assumption that the student would have more time and resources to correctly answer this assessment.

Sapling Homework results were downloaded directly from their website (saplinglearning.com) and compiled on a spreadsheet. The %'s given take into account the number of students correct and incorrect on a question. Exam and final questions were a mixture of multiple choice (2 pts for correct, 0 for incorrect) and short answer (based on how correct the student was).

1. Encourage students to finish their assessments as early as possible. As this is a hybrid class relying on online lectures, a reminder of this and the difficulty involved would be useful.

2. Find a way to ask Lewis Structure questions that show more clearly what the student understands.

3. Despite the high %range, it is always a good idea to find ways to improve the teaching of this subject (using the Periodic Table to determine the characteristics of molecules), especially placing them in context with the rest of chemistry.

COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION

Planned Changes

CHANGE METHODS OF DATA COLLECTION

Planned Changes

DESCRIBE CHANGES

Encouragement to finish assessments as early as possible (more reminders of due dates, for example), a reminder / intro into hybrid classes, find new and more accurate ways to assess, and placing the Periodic Table to determine the characteristics of molecules in context with the rest of chemistry.

PERSON/ GROUP RESPONSIBLE FOR ACTION

Robert Killin

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

12/31/2018

PRIORITY

High
CHM 151 Assessment Plan Data

Course Outcome

Summarizing numerical data in graphs is commonplace in science. Upon satisfactory completion of the course, students are expected to successfully interpret graphs.

AY 2017-2018

MEASURE 1:

Outcome 3, Measure 1

Q: To a beaker containing 175g water at 40°C are added 18g of potassium resulting aqueous salt solution is saturated.

TRUE/FALSE: __________

MEASURE 1 TYPE: Direct

MEASURE 1 RESULTS:
MEASURE 2:

Success Rates, %, for Outcome 3

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Results for O3, M1: \( \frac{24}{35} = 69\% \) correct; \( N = 35 \)

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<th>Incorrect</th>
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<tbody>
<tr>
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Inter-Annual Comparison

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<td>Spring 2018</td>
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<td>11</td>
<td>69%</td>
</tr>
<tr>
<td>Fall 2016</td>
<td>22</td>
<td>13</td>
<td>63%</td>
</tr>
<tr>
<td>Summation</td>
<td>46</td>
<td>24</td>
<td>66%</td>
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</tbody>
</table>

TRUE/FALSE Write the word, not T or F, otherwise you will receive zero points.

Equal masses of TATP and RDX are placed in separate but identical (in both shape and volume) glass Erlenmeyer flasks. The two flasks are located in the same room. Attached to the mouth of the Erlenmeyer flask is a deflated (initially) rubber balloon. The drawings below correctly describe the expected results based on the information found in the chart above.
MEASURE 2 TYPE: Direct

MEASURE 2 RESULTS:

<table>
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<tr>
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Results for O3, M2: $24/35 = 69\%$ correct; $N = 35$

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</thead>
<tbody>
<tr>
<td>24</td>
<td>11</td>
<td>69%</td>
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Inter-Annual Comparison

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<th>Correct</th>
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<tbody>
<tr>
<td>Spring 2018</td>
<td>24</td>
<td>11</td>
<td>69%</td>
</tr>
<tr>
<td>Fall 2016</td>
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<tr>
<td>Summation</td>
<td>39</td>
<td>31</td>
<td>56%</td>
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</table>

MEASURE 3:
Q: Use the phase diagram below.

approx. = approximate

If \( P_i = 1.25 \text{atm}, T_i = 303 \text{K} \) and \( P_f = 0.75 \text{atm}, T_f = 289 \text{K} \), then no phase change has
substance remains a liquid when under the conditions described \( \Delta P = (-) \) and \( \Delta T = \).

TRUE or FALSE: _____________
Spring 2018
Success Rates, %, for Outcome 3

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<th>Measure</th>
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<th>Actual</th>
</tr>
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Results for O3, M3: \( \frac{32}{35} = 91\% \) correct; \( N = 35 \)

<table>
<thead>
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<th>Correct</th>
<th>Incorrect</th>
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<tbody>
<tr>
<td>32</td>
<td>3</td>
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Inter-Annual Comparison

<table>
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<th></th>
<th>Correct</th>
<th>Incorrect</th>
<th>% Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring 2018</td>
<td>32</td>
<td>3</td>
<td>91%</td>
</tr>
<tr>
<td>Fall 2016</td>
<td>33</td>
<td>2</td>
<td>94%</td>
</tr>
<tr>
<td>Summation</td>
<td>65</td>
<td>5</td>
<td>93%</td>
</tr>
</tbody>
</table>

MEASURE 4:

**Outcome 3, Measure 4**

Q: Use the phase diagram below.

![Phase Diagram](image)

approx. = approximate

*Suppose a sample of the substance in an open container is located in Flag (T, P) 100 atm in a non-air conditioned room at \( T = 30^\circ C \). What are the corresponding values of \( P \) and \( T \)?*
### Spring 2018

**Success Rates, %, for Outcome 3**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Benchmark</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
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<td>69</td>
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</tbody>
</table>

**Results for O3, M4:** 24/35 = 69% correct; N = 35

<table>
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<tr>
<th></th>
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</thead>
<tbody>
<tr>
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**Inter-Annual Comparison**

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<tr>
<th></th>
<th>Correct</th>
<th>Incorrect</th>
<th>% Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring 2018</td>
<td>24</td>
<td>11</td>
<td>69%</td>
</tr>
<tr>
<td>Fall 2016</td>
<td>28</td>
<td>7</td>
<td>80%</td>
</tr>
<tr>
<td>Summation</td>
<td>52</td>
<td>18</td>
<td>74%</td>
</tr>
</tbody>
</table>

**FINDINGS**
RESULTS FOR OUTCOME 3:
Benchmark and actual success rates for all five measures for outcome 3 are below. The Target Level Achievement (TLA), aka benchmark success rate, was four measures (see column 4), though the other three were just six percentage points below benchmark.

### Spring 2018 Summary of Successes for Outcome 3

<table>
<thead>
<tr>
<th>Measure</th>
<th>Success Rates, %, for Outcome 3</th>
<th>TLA Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Benchmark 75</td>
<td>Actual 69</td>
</tr>
<tr>
<td>2</td>
<td>Benchmark 75</td>
<td>Actual 69</td>
</tr>
<tr>
<td>3</td>
<td>Benchmark 75</td>
<td>Actual 91</td>
</tr>
<tr>
<td>4</td>
<td>Benchmark 75</td>
<td>Actual 69</td>
</tr>
</tbody>
</table>

### Inter-Annual Comparison

<table>
<thead>
<tr>
<th>Measure</th>
<th>Spring 2018</th>
<th>Fall 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>2</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>3</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>4</td>
<td>X</td>
<td>✓</td>
</tr>
</tbody>
</table>

**TARGET LEVEL ACHIEVEMENT**

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.*

**WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

Overall, the instructor is mildly dissatisfied with the Target Level Achievement (TLA) for student performance.

**Strengths:**

- Though only one of four Benchmarks was met, nevertheless it’s encouraging that for the other three student performance was six percentage points below the target. In summary, it could be worse.
- Compared to Fall 2016 students scored considerably better on Measure 2 (69% Spring 2018 vs. 43% Fall 2016).

**WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

The less-than-stellar performance is a puzzle to the instructor because students had numerous graph-related questions on quizzes and exams and in labs throughout the semester. And with math a prerequisite certainly students have seen graphs before taking a chemistry course.

Students were given a ruler to draw straight lines for intersecting the x-y values. The instructor noticed that a number of students did not use the ruler but instead drew the x-y intersect freehand. Obviously this resulted in ‘drifting’ lines, which on the scale drawn, leads to marked errors. In many instances students knew to draw two intersecting lines between the x and y values but got the question wrong nevertheless because their freehand lines were crooked, resulting in a larger enough ‘drift’ to give a wrong answer. I've seen this previously and commented to students the need to use rulers to draw straight lines. But in the end I can’t force students to use the ruler given. But the instructor is at a loss why a good chunk of students refuse to use a ruler to draw intersecting lines. Beats me.

The instructor speculates that if more students had used rulers to draw accurate x-y intersects than it’s plausible, given the small sample size, that Benchmarks would have been met for those Measures that fell below the 75% target.

1. None; stay the course.

**DESCRIBE CHANGES**

None to be proposed or implemented.

**PERSON/GROUP RESPONSIBLE FOR ACTION**

Scott Donnelly

**PRIORITY**

Low

**Course Outcome**

Upon satisfactory completion of the course, students are expected to:

a. predict either the daughter or parent radionuclide of a nuclear decay reaction, and b. determine the type of nuclear decay based on a radioisotope’s neutron-to-proton ratio.
AY 2017-2018

MEASURE 1:

**Outcome 4, Measure 1**

Q: Molecular structure was covered in considerable detail in lecture. Let’s take a look at the structure and physical properties of explosives.

Below are three common explosives used either in the construction/demolition world’s military forces. All three exert a vapor pressure even when existing in the solid state.

*: Each nitro group (NO$_2$) is structurally equivalent to $\text{N}^+$.

![Chemical structures](https://azwestern.tk20.com/campustoolshighered/jsp/k12/reports/_6efe57...)

**TATP**

mp = 91°C

$d = 1.20g*cm^{-3}$

**TNT**

mp = 80°C

$d = 1.65g*cm^{-3}$

**RDX**

mp =

$d = 1$

A possible way to detect TNT and RDX is to measure the amount of radioactive nitrogen radioisotopes. Nitrogen-16 is a neutron rich, proton poor radionuclide. What is the identity of the radioactive particle emitted?
MEASURE 2:

Outcome 4, Measure 2

Q: A possible way to detect TNT and RDX is to measure the amount of rad from nitrogen radioisotopes. Nitrogen-16 is a neutron rich, proton poor radi the mass number of the radioactive particle emitted?
MEASURE 2 TYPE: Direct

**Success Rates, %, for Outcome 4**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Benchmark</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>75</td>
<td>37</td>
</tr>
</tbody>
</table>

Results for O4, M2: \( \frac{13}{35} = 37\% \) correct; \( N = 35 \)

<table>
<thead>
<tr>
<th></th>
<th>Correct</th>
<th>Incorrect</th>
<th>% Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>13</td>
<td>22</td>
<td></td>
</tr>
</tbody>
</table>

**Inter-Annual Comparison**

<table>
<thead>
<tr>
<th></th>
<th>Correct</th>
<th>Incorrect</th>
<th>% Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring 2018</td>
<td>13</td>
<td>22</td>
<td>37%</td>
</tr>
<tr>
<td>Fall 2016</td>
<td>8</td>
<td>27</td>
<td>23%</td>
</tr>
<tr>
<td>Summation</td>
<td>21</td>
<td>49</td>
<td>30%</td>
</tr>
</tbody>
</table>
Outcome 4, Measure 3

Q: A possible way to detect TNT and RDX is to measure the amount of radiation from nitrogen radioisotopes. Nitrogen-16 is a neutron rich, proton poor radionuclide. The question is: what is the identity of the daughter nuclide produced from nitrogen-16 decay?

Daughter nuclide: ________________

Spring 2018
Success Rates, %, for Outcome 4, Measure 3

<table>
<thead>
<tr>
<th>Measure</th>
<th>Benchmark</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>75</td>
<td>37</td>
</tr>
</tbody>
</table>

Results for O4, M3: **13/35 = 37% correct**;

*: ½ Correct:

a. atom identity is correct but incorrect mass number
b. atom identity is incorrect but correct mass number

Inter-Annual Comparison

<table>
<thead>
<tr>
<th></th>
<th>Correct</th>
<th>½ Correct</th>
<th>Incorrect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring 2018</td>
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<td>13</td>
<td>9</td>
</tr>
<tr>
<td>Fall 2016</td>
<td>15</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td>Summation</td>
<td>28</td>
<td>19</td>
<td>23</td>
</tr>
</tbody>
</table>

MEASURE 3 TYPE: Direct

MEASURE 3 RESULTS:
Outcome 4, Measure 4

Q: Does the neutron-proton intersection for nitrogen-16 lie:

a. below the band of stability.

b. above the band of stability.

c. within the band of stability.

d. none of the choices.

Success Rates, %, for Outcome 4

<table>
<thead>
<tr>
<th>Measure</th>
<th>Benchmark</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>75</td>
<td>74</td>
</tr>
</tbody>
</table>

Results for O4, M4: $\frac{26}{35} = 74\%$ correct;

<table>
<thead>
<tr>
<th>Choices</th>
</tr>
</thead>
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<tr>
<td>A</td>
</tr>
<tr>
<td>B</td>
</tr>
<tr>
<td>C</td>
</tr>
<tr>
<td>D</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
</tr>
<tr>
<td>26</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>26</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Incorrect</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
</tr>
</tbody>
</table>
TARGET LEVEL ACHIEVEMENT
*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Overall, the instructor is dissatisfied with the Target Level Achievement (TLA) for student performance. Each Measure challenged students' foundational understanding of the key ideas associated with radioisotopes and modes of radioactive decay.

Strengths:
- Measure 1 was convincingly met.
- Though Measure 2 was not met, nevertheless students in spring 2018 performed fourteen percentage points better than students in Fall 2016. See Inter-Annual comparison.
- Measure 4 is new and student performance is only one percentage point below the Benchmark.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Student performance for Measures 2 & 3 is a puzzle to the instructor because nuclear chemistry is the first topic addressed in General Chemistry 1. All quizzes and exams in General Chemistry 1 are comprehensive. So students are still asked nuclear chemistry questions in weeks 4, 7, 10, 12 and so on. Consequently, students have ample exposure to foundational nuclear chemistry principles and question types related to this topic.

And discussion of nuclear chemistry begins week 1. Hence, students had more or less 14 weeks to learn the basics.

Conclusion: The nuclear chemistry questions asked on the Final Comprehensive Exam were not the first time they had seen such questions.

Describe Changes
None. Stay the course as discussed in Analysis, Weaknesses.

Person/ Group Responsible for Action
Scott Donnelly

Priority
Low

Describe Any Additional Resources Needed (Leave Blank if No Additional Resources Are Needed.)
No changes proposed.

Course Outcome
Upon satisfactory completion of the course, students are expected to have a conceptual understanding of gas laws in addition to being able to apply the gas laws' mathematical relationships (=
calculations) in theoretical situations.

AY 2017-2018

MEASURE 1:

Q1, M1 Question where O = Outcome and M = Measure

**Outcome 1, Measure 1**

Q: How does the volume of 1 mole of an ideal gas change if the temperature and the pressure of the ideal gas are both decreased by a factor of four?

a. decreases by four times
b. decreases by sixteen times
c. increases by four times
d. increases by sixteen times
e. remains unchanged
f. none of the choices

MEASURE 1 TYPE: Direct

MEASURE 1 RESULTS:
MEASURE 2:

**Outcomes 1, Measure 2**

Q: We've all seen or done what's described in the drawing below. What's the relationship between the number of breaths exhaled into the balloon and the balloon?

- a. Charles’
- b. Boyle’s
- c. Amonton’s
- d. Avogadro’s
- e. Dalton’s
- f. None of the choices

**MEASURE 2 TYPE:** Direct

**MEASURE 2 RESULTS:**

---

**Spring 2018**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Benchmark</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>75</td>
<td>71</td>
</tr>
</tbody>
</table>

Results for O1, M1: 25/35 = 71% correct; N = 35

<table>
<thead>
<tr>
<th>Choices</th>
<th>Correct</th>
<th>Incorrect</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>B</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>C</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>25</td>
<td>0</td>
</tr>
<tr>
<td>E</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Total Correct: 25, Incorrect: 10

**Inter-Annual Comparison**

<table>
<thead>
<tr>
<th>Choices</th>
<th>Spring 2018</th>
<th>Fall 2016</th>
<th>Summation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>B</td>
<td>3</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>C</td>
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<td>D</td>
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<td>E</td>
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<td>0</td>
<td>45</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

% Correct: Spring 2018 = 71%, Fall 2016 = 57%, Summation = 64%

---
FINDINGS

Spring 2018
Success Rate, %, for Outcome 1

<table>
<thead>
<tr>
<th>Measure</th>
<th>Benchmark</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>75</td>
<td>63</td>
</tr>
</tbody>
</table>

Results for O1, M2: \( \frac{22}{35} = 63\% \) correct; \( N = 35 \)

<table>
<thead>
<tr>
<th>Choices</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
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<tbody>
<tr>
<td>Total</td>
<td>2</td>
<td>6</td>
<td>2</td>
<td>22</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

Correct Incorrect
Total 22 13

Inter-Annual Comparison

<table>
<thead>
<tr>
<th>Choices</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>% Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring 2018</td>
<td>2</td>
<td>6</td>
<td>2</td>
<td>22</td>
<td>3</td>
<td>0</td>
<td>63%</td>
</tr>
<tr>
<td>Fall 2016</td>
<td>3</td>
<td>5</td>
<td>2</td>
<td>23</td>
<td>0</td>
<td>2</td>
<td>66%</td>
</tr>
</tbody>
</table>

Summation | 5 | 11| 4 | 45| 3 | 2 | 64%       |
Results for Outcome 1:
Benchmark and Actual success rates for the two measures for Outcome 1 are below. The Target Level Achievement (TLA), aka Benchmark Success Rate performance was not met for either Measure 1 or 2 (see column 4).

<table>
<thead>
<tr>
<th>Measure</th>
<th>Benchmark</th>
<th>Actual</th>
<th>TLA Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>75</td>
<td>71</td>
<td>X</td>
</tr>
<tr>
<td>2</td>
<td>75</td>
<td>63</td>
<td>X</td>
</tr>
</tbody>
</table>

**Spring 2018 Summary of Successes for Outcome 1**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Spring 2018</th>
<th>Fall 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>2</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

**TARGET LEVEL ACHIEVEMENT**
Not Met
*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.*

**WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**
Overall, the instructor is mildly dissatisfied with the Target Level Achievement (TLA) for student performance. Why mildly? The results for both Measures are not terribly below the benchmark. This is somewhat encouraging. But the Benchmark of 75% is not that high for questions that realistically are not high level, challenging questions.

Strength:
- Though the Benchmark for Measure 1 was not met (75% vs. 71%), nevertheless student performance for Spring 2018 outdid student performance for Fall 2016 by fourteen percentage points (+14%). See Inter-Annual comparison.

**WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**
The instructor believes that there is always room for improvement whether it is related to instructor preparation, or teaching strategies, or student performance. TLA's were not met for both measures, though for Measure 1 the percentage point difference of -4% is just below the Benchmark.

The -12% difference for O1,M2 though (75% Benchmark vs 63% Actual) is more problematic and discouraging given that the instructor made a concerted effort, based on previous year’s Results for this Outcome, to spend more time in lecture describing the difference between the gas laws and relating them to ‘real world’ events.

Neither question required a foundational mathematical understanding of the ideal gas law or individual gas laws. Measure 1 is conceptual in nature while Measure 2 is nothing more than just committing to memory which gas law explains what physical variables. So both are low-level questions consistent with what students find repeatedly in other courses.

1. **1.** Throw my hands in the air and say, 'Whatevs!'.
2. In lecture continue emphasizing the conceptual (= non-mathematical) description of ideal gas behavior.
3. Add more gas law practice problems to weekly labs. (Though I've already done this in the past).
4. Perhaps create ‘dry’ lab where students spend the lab period working gas law conceptual and non-conceptual (= mathematical) problems. I have not done this yet even though I recommended doing this last time. Rather than take valuable and limited lab time doing this, I perhaps should create such an activity as a lecture graded assignment.

Note 1: If it’s not graded students won’t do it.
Note 2: And if it’s graded, the point value needs to be rather ‘high’ or else they’ll just blow it off.

**COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION**
Planned Changes

**DESCRIBE CHANGES**
See Analysis for brief discussion.

**PERSON/ GROUP RESPONSIBLE**
Scott Donnelly
Course Outcome

Upon satisfactory completion of the course, students are expected to have a conceptual understanding of thermochemistry in addition to being able to use the seminal thermochemical equation \( q = mC\Delta T \) in theoretical situations.

AY 2017-2018

MEASURE 1:

Outcome 1, Measure 1

The U.S. is relying increasingly on liquefied natural gas (LNG) to satisfy its appetite for energy. The chemical composition of LNG is methane, \( \text{CH}_4 \). How is LNG ‘made’? Gaseous methane (NG or natural gas) is piped from an oil and/or gas field via pipeline to a port-side liquefaction and storage facility where it is cooled to an incredibly cold temperature, \(-261\,^\circ\text{F}\) (brrrrrr). At this temperature the gaseous methane condenses.

Q: Is the physical change accompanying the condensation of gaseous methane \textit{exothermic} or \textit{endothermic}?
**Outcome 2, Measure 2**

Q: The U.S. is relying increasingly on liquefied natural gas (LNG) to sati energy. The chemical composition of LNG is methane, CH₄. How is LNG methane (NG or natural gas) is piped from an oil and/or gas field via pip liquefaction and storage facility where it is cooled to an incredibly cold temperature (brerrr!). At this temperature the gaseous methane condenses.

Which choice is correct about the density comparison between LNG and NG?

a. LNG > NG  
b. LNG = NG  
c. LNG < NG  
d. None of the above.
MEASURE 2 TYPE: Direct

MEASURE 2 RESULTS:

### Spring 2018

<table>
<thead>
<tr>
<th>Measure</th>
<th>Benchmark</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>75</td>
<td>71</td>
</tr>
</tbody>
</table>

Results for O2, M2: $\frac{25}{35} = 71\%$ correct; $N = 35$

<table>
<thead>
<tr>
<th>Choices</th>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
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<td></td>
<td>A</td>
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<td>C</td>
<td>D</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>7</td>
<td>3</td>
<td>0</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Correct</th>
<th>Incorrect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>25</td>
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</tbody>
</table>

### Inter-Annual Comparison

<table>
<thead>
<tr>
<th>Choices</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>% Correct</td>
</tr>
<tr>
<td>Spring 2018</td>
<td>25</td>
<td>7</td>
<td>3</td>
<td>0</td>
<td>71%</td>
</tr>
<tr>
<td>Fall 2016</td>
<td>21</td>
<td>7</td>
<td>7</td>
<td>0</td>
<td>60%</td>
</tr>
<tr>
<td>Summation</td>
<td>46</td>
<td>14</td>
<td>10</td>
<td>0</td>
<td>66%</td>
</tr>
</tbody>
</table>
Outcome 2, Measure 3

Q: The U.S. is relying increasingly on liquefied natural gas (LNG) to satisfy energy. The chemical composition of LNG is methane, CH₄. How is LNG methane (NG or natural gas) is piped from an oil and/or gas field via pipe liquefaction and storage facility where it is cooled to an incredibly cold temperature (brrrrrr!). At this temperature the gaseous methane condenses.

Which choice, if any, is correct with respect to the specific enthalpy comparison and NG?

a. LNG > NG  b. LNG = NG  c. LNG < NG  d. None of the
Outcome 2, Measure 4:

Q: The U.S. is relying increasingly on liquefied natural gas (LNG) to satisfy energy. The chemical composition of LNG is methane, CH₄. How is LNG methane (NG or natural gas) piped from an oil and/or gas field via pipe liquefaction and storage facility where it is cooled to an incredibly cold temperature (brrrrr!). At this temperature the gaseous methane condenses.

Which choice, if any, is correct with respect to the enthalpic density comparison and NG?

a. LNG > NG  b. LNG = NG  c. LNG < NG  d. None of the
MEASURE 4 TYPE: Direct

MEASURE 4 RESULTS:

### Spring 2018

#### Success Rates, %, for Outcome 2

<table>
<thead>
<tr>
<th>Measure</th>
<th>Benchmark</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>75</td>
<td>66</td>
</tr>
</tbody>
</table>

#### Results for O2, M4: 23/35 = 66% correct; N = 35

<table>
<thead>
<tr>
<th>Choices</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>5</td>
<td>7</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Correct</th>
<th>Incorrect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>23</td>
</tr>
</tbody>
</table>

#### Inter-Annual Comparison

<table>
<thead>
<tr>
<th>Choices</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>% Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>Spring 2018</td>
<td>23</td>
<td>5</td>
<td>7</td>
<td>0</td>
<td>66%</td>
</tr>
<tr>
<td>Fall 2016</td>
<td>22</td>
<td>4</td>
<td>9</td>
<td>0</td>
<td>63%</td>
</tr>
<tr>
<td>Summation</td>
<td>45</td>
<td>9</td>
<td>16</td>
<td>0</td>
<td>64%</td>
</tr>
</tbody>
</table>
**Outcome 2, Measure 5**

Q: Each of the three solid objects (X, Y, and Z) in the table below is the same color geometrical shape. All three or two of the three could be made from the same material could be different.

<table>
<thead>
<tr>
<th>Property</th>
<th>X</th>
<th>Y</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mass (g)</td>
<td>12.0</td>
<td>150.0</td>
<td>30.0</td>
</tr>
<tr>
<td>C</td>
<td>4.0</td>
<td>2.0</td>
<td>4.0</td>
</tr>
<tr>
<td>Temperature (°C)</td>
<td>30</td>
<td>30</td>
<td>25</td>
</tr>
</tbody>
</table>

Object Y is placed in a warm water bath whose temperature remains constant at 40°C placed in a different warm water bath whose temperature remains constant at 85.5°C, their respective constant temperature water bath for three hours. After three hours, quickly transferred to separate but identically shaped insulated containers. Each is contains the same mass of liquid olive oil (OO) at T_{inital} = 22°C. Which choice(s), if any,

a. $\Delta T_Y$ in water $= \Delta T_Z$ in water
b. $\Delta T_Y$ in water $< \Delta T_Z$ in water
c. $\Delta T_Y$ in water $> \Delta T_Z$ in water
d. $+q_Y = +q_Z$
e. $+q_Y < +q_Z$
g. $\Delta T_{oo}$ for Y $= \Delta T_{oo}$ for Z
h. $\Delta T_{oo}$ for Y $< \Delta T_{oo}$ for Z
i. $\Delta T_{oo}$ for Y $> \Delta T_{oo}$ for Z
### Spring 2018

<table>
<thead>
<tr>
<th>Measure</th>
<th>Benchmark</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>50</td>
<td>51</td>
</tr>
</tbody>
</table>

Results for O2, M4: $18/35 = 51\%$ correct*; $N = 35$

* defined as percentage students that got all three (3/3) answers correct

#### Choices

<table>
<thead>
<tr>
<th>Choices</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>3</td>
<td>29</td>
<td>3</td>
<td>3</td>
<td>24</td>
<td>9</td>
<td>2</td>
<td>26</td>
<td>6</td>
</tr>
</tbody>
</table>

#### Overall Correct

<table>
<thead>
<tr>
<th>3/3</th>
<th>2/3</th>
<th>1/3</th>
<th>0/3</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>12</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FINDINGS
Results for Outcome 2:
Benchmark and Actual success rates for five measures for Outcome 2 are fo below. The Target Level Achievement (TLA) for student performance was me five Measures (see column 4).

<table>
<thead>
<tr>
<th>Measure</th>
<th>Benchmark</th>
<th>Actual</th>
<th>TLA Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>75</td>
<td>91</td>
<td>✓</td>
</tr>
<tr>
<td>2</td>
<td>75</td>
<td>71</td>
<td>x</td>
</tr>
<tr>
<td>3</td>
<td>75</td>
<td>34</td>
<td>x</td>
</tr>
<tr>
<td>4</td>
<td>75</td>
<td>66</td>
<td>x</td>
</tr>
<tr>
<td>5</td>
<td>50</td>
<td>51</td>
<td>✓</td>
</tr>
</tbody>
</table>

*Measure 5 was different.

Summary of Successes for Outcome 2

Inter-Annual Comparison

<table>
<thead>
<tr>
<th>Measure</th>
<th>Spring 2018</th>
<th>Fall 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>✓</td>
<td>x</td>
</tr>
<tr>
<td>2</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>3</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>4</td>
<td>✓</td>
<td>x</td>
</tr>
<tr>
<td>5</td>
<td>✓</td>
<td>*</td>
</tr>
</tbody>
</table>

Overall, the instructor is mildly dissatisfied with the Target Level Achievement (TLA) for student performance, especially for Measure 3.

Strengths:
- Performance on Measure 1 is encouraging and considerably better than for Fall 2016 (see Inter-Annual comparison),
- Performance on Measures 2 is encouraging (though still below the TLA) as it's considerably better than for Fall 2016 (see Inter-Annual comparison),
- Performance on Measures 3 & 4 is encouraging as performance is consistent (though poor) with performance for Fall 2016 (see Inter-Annual comparison), i.e. at least it's not worse,
- Measure 5 is new with a low Benchmark of 50% but given that the TLA was met this provides a scaffolding for improving student performance next go around.

Weaknesses presumed include:
- Students continuing struggles with conceptual-type questions that do not involve mindless 'plug and chug' mathematics, and
- Students persistent misunderstanding of and refusal to learn units likely are the culprits for poor performance on Measure 3.

1. Go for a nice walk.
2. Continue emphasizing in lecture the conceptual (= non-mathematical) description of thermochemical principles.
3. In lecture continue to work numerical problems using $\Delta q = m \Delta T$.
4. The last go around I stated, Possibly revamp the two thermochemistry labs to include more conceptual problems. Rather than do this perhaps I'll do what I proposed for the gas laws. That is to create a graded lecture assignment. And as noted in the gas laws section (Outcome 1),

Note 1: If it's not graded students won't do it.
Note 2: And if it's graded, the point value needs to be rather 'high' or else they'll just blow it off.
<table>
<thead>
<tr>
<th>COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION</th>
<th>Planned Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESCRIBE CHANGES</td>
<td>See Recommendations.</td>
</tr>
<tr>
<td>PERSON/ GROUP RESPONSIBLE FOR ACTION</td>
<td>Scott Donnelly</td>
</tr>
<tr>
<td>TARGET DATE FOR IMPLEMENTATION OF THE ACTION</td>
<td>11/05/2018</td>
</tr>
<tr>
<td>PRIORITY</td>
<td>Low</td>
</tr>
</tbody>
</table>

https://azwestern.tk20.com/campustoolshighered/jsp/k12/reports/_6efe57...
CHM 152 Assessment Plan Data

Course Outcome
Successful calculations using concentration units.

AY 2017-2018

MEASURE 1:
The average student score (N ~ 35) on the following Sapling Learning online homework questions will be 75 % or higher:

- Calculate the molarity of the following solutions.
  
a) 0.350 mol of Na₂S in 1.90 L of solution.

  Number
  M

  b) 34.5 g of MgS in 915 mL of solution.

  Number
  M

HW 1-7)
HW 1-8)

If 6.51 g of CuNO₃ is dissolved in water to make a 0.790 M solution, what is the volume of the solution?

Number
mL

HW 1-9)
You need to prepare 250. mL of a 0.500 M aqueous solution of sucrose, C₉H₁₈O₉(aq), which is used frequently in biological experiments.

Which type of glassware should you use to make this solution (assuming that the accuracy of the concentration is important)?

- A
- B
- C

How should the correct amount of solute be obtained?

- Measure out x cm of sucrose with a ruler.
- Measure out x mol of solid sucrose on a molarity.
- Measure out x g of solid sucrose on a balance.

Now that you have selected the correct unit above, what is the value of $x$?

$x =$

HW 7-5)

Complete this table of values for four aqueous solutions at 25 °C.

<table>
<thead>
<tr>
<th></th>
<th>[H⁺]</th>
<th>[OH⁻]</th>
<th>pH</th>
<th>pOH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solution A:</td>
<td> </td>
<td> </td>
<td> </td>
<td> </td>
</tr>
<tr>
<td>Given:</td>
<td>0.00096 M</td>
<td> </td>
<td> </td>
<td> </td>
</tr>
<tr>
<td>Solution B:</td>
<td> </td>
<td> </td>
<td> </td>
<td> </td>
</tr>
<tr>
<td>Given:</td>
<td>0.00041 M</td>
<td> </td>
<td> </td>
<td> </td>
</tr>
<tr>
<td>Solution C:</td>
<td> </td>
<td> </td>
<td> </td>
<td> </td>
</tr>
<tr>
<td>Given:</td>
<td>7.57</td>
<td> </td>
<td> </td>
<td> </td>
</tr>
<tr>
<td>Solution D:</td>
<td> </td>
<td> </td>
<td> </td>
<td> </td>
</tr>
<tr>
<td>Given:</td>
<td>4.66</td>
<td> </td>
<td> </td>
<td> </td>
</tr>
</tbody>
</table>

What is the pH of a 2.1 M solution of HClO₄?

pH =

HW 7-6)
What is the pH of $2.9 \times 10^{-3}$ M HCl?

(b) What is the pH of $8 \times 10^{-8}$ M HCl?

- 7.1
- 6.8
- 6.7

The flask shown here contains 0.710 g of acid and a few drops of phenolphthalein indicator dissolved in water. The buret contains 0.170 M NaOH.

What volume of base is needed to reach the end point of the titration?

Number

<table>
<thead>
<tr>
<th>mL base</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

What is the molar mass of the acid (assuming it is diprotic and that the end point corresponds to the second equivalence point)?

Number

<table>
<thead>
<tr>
<th>g / mol</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

For the titration of 70.0 mL of 0.300 M NH₃ with 0.500 M HCl at 25 °C, determine the relative pH at each of these points.

(a) before the addition of any HCl

- pH > 7
- pH = 7
- pH < 7

(b) after 42.0 mL of HCl has been added

- pH > 7
- pH = 7
- pH < 7

(c) after 52.0 mL of HCl has been added

- pH > 7
- pH = 7
- pH < 7

MEASURE 1 TYPE: Direct
MEASURE 1 RESULTS:

MEASURE 2:
The average student score (N ~ 35) on the following exam questions will be 65% or higher:

Exam 1-9) You have 57.3 g of NH₄NO₃ and you want to dissolve all of it into 100 mL of water. If the solubility is 150 g / 100 mL, the solution is ____
- unsaturated
- saturated
- supersaturated
- you don't have enough information to answer this

Exam 1-12) You have 3.76 g of NaNO₃. What is the %(m/v) of it when it is dissolved into 495 mL of water?
- 0.7596 %
- 759.6 %
- 7.596 %
- 0.007596 %

Exam 1-14) If you have 5.87 moles of a compound (i = 1) dissolved in 56 grams of benzene, what is the freezing point depression? (Kf = 4.90)
- 3.356
- 513.6
- 45.22
- 0.514

Exam 1-8) You have 10.5 g of KNO₃ and 732 mL of water.
- What is the solution's molarity? (3 pts)
- What is the mole fraction of solvent in this solution? (3 pts)

Exam 1 – 2(lab)) You're in the lab making a series of solutions of known concentration and running them on the visible spectrometer. You plan to start with 0.141 M of a solution.
a) You have several volumetric pipets at volumes of 10 mL, 20 mL, 25 mL, 35 mL, 50 mL, and 75 mL. If you take your original solution and use these pipets to make six separate solutions (using the original solution as your starting solution every time), what are the concentrations of the six diluted solutions if you use a 100 mL volumetric flask for every solution? Show your work for one of these calculations. (3 pts)

Exam 2 – 1b (lab)) If you used a 100 mL volumetric flask to make your sample (described in the previous question), how many milligrams of copper does your sample contain? (2 pts)

Exam 3-10) If you have 12.53 mL of a 0.2485 M solution of HCl and you needed 24.31 mL of a solution of NaOH to titrate it, what is the molarity of the NaOH solution?
- 0.1281 M
- 7.807 M
- 75.69 M
- 0.9984 M

Exam 3-11) If you have the same solution of HCl as in question #17, but use a solution of Mg(OH)₂, which of the following equations can be used to calculate the molarity of the Mg(OH)₂?
Exam 3 – 1a – ii (lab)) Making NaOH solution: How many grams of NaOH are required to make 300 mL of a 0.0833 M solution? (3 pts)

Exam 3 – 1a – iii (lab)) Standardization: If you titrated 0.00208 moles of KHP and the titration volume was 24.56 mL, what is the actual concentration of NaOH? (3 pts)

MEASURE 2 TYPE: Direct
MEASURE 2 RESULTS:

Outcome 2 % Scores on the Exams

<table>
<thead>
<tr>
<th>Score</th>
<th>Exam 1/16</th>
<th>Exam 1/18</th>
<th>Exam 1/19</th>
<th>Exam 1/5(5th)</th>
<th>Exam 1/6a</th>
<th>Exam 2/1</th>
<th>Exam 2/4</th>
<th>Exam 2/14</th>
<th>Exam 2/26</th>
</tr>
</thead>
<tbody>
<tr>
<td>60.35</td>
<td>48.25</td>
<td>32.788</td>
<td>62.28</td>
<td>57.85</td>
<td>36.652</td>
<td>60.758</td>
<td>93.985</td>
<td>77</td>
<td></td>
</tr>
</tbody>
</table>

MEASURE 3:
The average student score (N = 35) on the following final exam questions will be 65 % or higher:

7) You have 115 g of a salt and you want to dissolve all of it into 200 mL of water. If the solubility is 57.5 g / 100 mL, the solution is ___
   - unsaturated
   - saturated
   - supersaturated
   - you don't have enough information to answer this

9) You have 3.76 g of NaNO₃. What is the %(m/v) of it when it is dissolved into 495 mL of water?
   - 0.7596 %
   - 759.6 %
   - 7.596 %
   - 0.007596 %

11) If you have 0.745 moles of a compound (i = 1) dissolved in 24 grams of benzene, what is the freezing point depression? (Kf = 4.90)
   - 0.1521
   - 31.04
   - 152.1
   - 0.03104

39) If you have 12.53 mL of a 0.2485 M solution of HCl and you needed 24.31 mL of a solution of NaOH to titrate it, what is the molarity of the NaOH solution?
   - 0.1281 M
   - 7.807 M
75.69 M
0.9984 M

short answer 5) You make a solution of 14.8 g of CaCl₂ dissolved in 745 mL of water.

- What is the concentration (both molarity and molality) of this solution? (4 pts)
- What is the mole fraction of water in the above solution? (3 pts)

FINDINGS

<table>
<thead>
<tr>
<th>Question Number</th>
<th>% Score</th>
<th>Benchmark</th>
<th>Passed Benchmark?</th>
</tr>
</thead>
<tbody>
<tr>
<td>HW 1-7</td>
<td>98.76</td>
<td>75</td>
<td>Y</td>
</tr>
<tr>
<td>HW 1-8</td>
<td>97.1</td>
<td>75</td>
<td>Y</td>
</tr>
<tr>
<td>HW 1-9</td>
<td>96.93</td>
<td>75</td>
<td>Y</td>
</tr>
<tr>
<td>HW 7-5</td>
<td>99.04</td>
<td>75</td>
<td>Y</td>
</tr>
<tr>
<td>HW 7-6</td>
<td>98.66</td>
<td>75</td>
<td>Y</td>
</tr>
<tr>
<td>HW 7-9</td>
<td>96.66</td>
<td>75</td>
<td>Y</td>
</tr>
<tr>
<td>HW 8-6</td>
<td>93.96</td>
<td>75</td>
<td>Y</td>
</tr>
<tr>
<td>HW 8-8</td>
<td>96.88</td>
<td>75</td>
<td>Y</td>
</tr>
<tr>
<td>Exam 1/ 9</td>
<td>88</td>
<td>65</td>
<td>Y</td>
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<tr>
<td>Exam 1/ 12</td>
<td>68</td>
<td>65</td>
<td>Y</td>
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<tr>
<td>Exam 1/ 14</td>
<td>88</td>
<td>65</td>
<td>Y</td>
</tr>
<tr>
<td>Exam 1 / 2a (lab)</td>
<td>80</td>
<td>65</td>
<td>Y</td>
</tr>
<tr>
<td>Exam 1 / 8a</td>
<td>92</td>
<td>65</td>
<td>Y</td>
</tr>
<tr>
<td>Exam 1 / 8b</td>
<td>72</td>
<td>65</td>
<td>Y</td>
</tr>
<tr>
<td>Exam 2 / 1b (lab)</td>
<td>96.65</td>
<td>65</td>
<td>Y</td>
</tr>
<tr>
<td>Exam 3 / 10</td>
<td>95.65</td>
<td>65</td>
<td>Y</td>
</tr>
<tr>
<td>Exam 3 / 11</td>
<td>73.91</td>
<td>65</td>
<td>Y</td>
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<tr>
<td>Exam 3 / 2a / i (lab)</td>
<td>91.3</td>
<td>65</td>
<td>Y</td>
</tr>
<tr>
<td>Exam 3 / 2b / ii (lab)</td>
<td>66.67</td>
<td>65</td>
<td>Y</td>
</tr>
<tr>
<td>Final / 7</td>
<td>82.61</td>
<td>65</td>
<td>Y</td>
</tr>
<tr>
<td>Final / 9</td>
<td>69.57</td>
<td>65</td>
<td>Y</td>
</tr>
<tr>
<td>Final / 11</td>
<td>73.91</td>
<td>65</td>
<td>Y</td>
</tr>
<tr>
<td>Final / 39</td>
<td>86.96</td>
<td>65</td>
<td>Y</td>
</tr>
<tr>
<td>Final / 5a</td>
<td>94.57</td>
<td>65</td>
<td>Y</td>
</tr>
<tr>
<td>Final / 5b</td>
<td>79.71</td>
<td>65</td>
<td>Y</td>
</tr>
</tbody>
</table>

TARGET LEVEL ACHIEVEMENT

Met

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Due to the % range (60% - 99.1% for Sapling Homework, 66.67% - 95.65% for exam questions, and 69.57% to 94.57% for final questions), the students seem to understand concentration units, which is a subject that follows students through upper-level chemistry. One particular question (Exam 3 / 11 from Measure 2, on titrating a dibase vs. a monoprotic acid) the students scored higher than in semesters past (at 73.91% vs. less than 70%), which the instructor is pleased of considering it was a challenge question (we discussed a monobase vs. a diprotic acid in class, but not the opposite).
One last point is that although not as strongly measured as ICE Tables, it was assessed multiple times (2 different exams and the final) throughout the semester.

**WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

In measure 1, even though the students scored high on the assessments (80% - 99.1%), the percentages were based on the number of correct and incorrect students (i.e. students who attempted the question). Students who didn't attempt the question were ignored, because it is difficult to determine the reason the student didn't do the question (examples include couldn't finish before due date, the question looked hard, and/or the student dropped the class). Thus, the % score could be less. Also, question 8-6 is one of only two questions overall that is below the 75% benchmark. This could be a result of it being a unique question in that the student has to titrate a sample on the computer (which is easy to overshoot and get the wrong answer). Three exam scores were close to the 65% benchmark: Exam 1 / 12 and Final / 9 (they are both the same question on mass/volume %, which was briefly covered at the beginning of the class) and Exam 3 / 2a / iii (lab) (a last minute change to the lab schedule made this question harder than before).

**ADDITIONAL COMMENTS:**

The benchmark for the Exam and Final questions was set at 65%, which is the lowest score a student can attain and achieve a passing score in CHM 152. The benchmark for the Sapling Learning homework questions was arbitrarily set at 75%, due to the assumption that the student would have more time and resources to correctly answer this assessment.

Sapling Homework results were downloaded directly from their website (saplinglearning.com) and compiled on a spreadsheet. The %’s given take into account the number of students correct and incorrect on a question.

Exam questions were a mixture of multiple choice (2 pts for correct, 0 for incorrect) and short answer (based on how correct the student was) and the final similar to the exams.

1. Try to determine a better way to estimate the number of students who answer a question on Sapling.
2. For the exam / final questions, more discussion on mass/volume % would be helpful.
3. Despite the high %range, it is always a good idea to find ways to improve the teaching of this subject (concentration units), especially placing them in context with the rest of chemistry. This can be accomplished in lecture with more examples and in lab with greater hands-on opportunities.

**COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION**

**CHANGE METHODS OF DATA COLLECTION**

Planned Changes

**DESCRIBE CHANGES**

A greater discussion of certain concentration topics and ensure that the usage of concentration units is placed in context, in lecture and/or lab.

**PERSON/GROUP RESPONSIBLE FOR ACTION**

Robert Killin

**TARGET DATE FOR IMPLEMENTATION OF THE ACTION**

12/31/2018

**PRIORITY**

High

**Course Outcome**

Successful calculations using equilibrium constants and qualitative use of Le Chatelier's principle to predict the effects of changing reaction conditions on reaction equilibrium.

**AY 2017-2018**

**MEASURE 1:**

The average student score (N ~ 35) on the following Sapling Learning online homework questions will be 75 % or higher:

HW 5-5)
Consider the following reaction.

\[
P_{2}Cl_{6}(g) \rightleftharpoons PCl_{5}(g) + Cl_{2}(g) \quad K_c = 0.0420
\]

The concentrations of the products at equilibrium are \([PCl_5] = 0.170\, \text{M}\), and \([Cl_2] = 0.120\, \text{M}\). What is the concentration of the reactant, \(PCl_6\), at equilibrium?

\[
[PCl_6] = \, \text{M}
\]

HW 5-11)

Consider the following reaction.

\[
A(aq) \rightleftharpoons 2B(aq) \quad K_c = 4.96 \times 10^{-4} \text{ at } 500\, \text{K}
\]

If a 2.30 M sample of \(A\) is heated to 600 K, what is the concentration of \(B\) at equilibrium?

\[
[B] = \, \text{M}
\]

HW 5-12)

Consider the following reactions:

\[
A + 2B \rightleftharpoons 2C \quad K_c = 2.53
\]

For

\[
2C \rightleftharpoons D \quad K_c = 0.294
\]

Calculate the value of the equilibrium constant for the reaction \(D \rightleftharpoons A + 2B\)

\[
K_c = \, \text{ }
\]

HW 5-14)
Identify the intermolecular forces present in each of these substances.

<table>
<thead>
<tr>
<th>Hydrogen bonding, dipole-dipole, and dispersion</th>
<th>Dipole-dipole and dispersion only</th>
<th>Dispersion only</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCl</td>
<td>NH₃</td>
<td>CO</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CH₄</td>
</tr>
</tbody>
</table>

Consider the following system at equilibrium:

$$2\text{CO}(g) + \text{O}_2(g) \rightleftharpoons 2\text{CO}_2(g)$$

a) How will increasing the concentration of CO shift the equilibrium?

- [ ] to the right
- [ ] to the left
- [ ] no effect

b) How will increasing the concentration of CO₂ shift the equilibrium?

- [ ] to the right
- [ ] to the left
- [ ] no effect

c) How will decreasing the volume of the container shift the equilibrium?

- [ ] to the right
- [ ] to the left
- [ ] no effect
MEASURE 2:

The average student score (N ~ 35) on the following exam questions will be 65% or higher:

Exam 2 – 8) Reactants are favored if the value of K is ___ one.
- greater than
- equal to
- less than

Exam 2 – 9) If you have a balanced equation and you multiply the reaction by 3, what happens to the value of K?
- it is multiplied by 3
- it is taken to the 3rd power
- it is taken by the cube root
- it is divided by 3

Exam 2 – 10) In the balanced reaction 2H₂ (g) + O₂ (g) → 2H₂O (l), which of the components of the reaction is removed in calculating K?
- H₂O
- H₂
- O₂
- none

Exam 2 – 11) In the balanced reaction N₂ (g) + O₂ (g) → 2NO (g), which way does the reaction go if you remove N₂?
- the reaction will go to the left
- the reaction goes to the right
- nothing will happen

Exam 2 – 12) In the balanced reaction 2SO₂ (g) + O₂ (g) → 2SO₃ (g), which way does the reaction go if you increase the pressure?
- the reaction goes to the left
- the reaction goes to the right
- nothing will happen

Exam 2 – 2a) What is the K for the balanced equation N₂ (g) + 3F₂ (g) → 2NF₃ (g)? (3 pts)

Direct

MEASURE 2 RESULTS:
MEASURE 3:
The average student score (N ~ 35) on the following final exam questions will be 65% or higher:

1. Products are favored if the value of $K$ is ___ one.
   - greater than
   - equal to
   - less than

1. In the balanced reaction $N_2(g) + O_2(g) \rightarrow 2NO(g)$, which way does the reaction go if you add $N_2$?
   - the reaction will go to the left
   - the reaction goes to the right
   - nothing will happen

1. In the balanced reaction $2SO_2(g) + O_2(g) \rightarrow 2SO_3(g)$, which way does the reaction go if you decrease the pressure?
   - the reaction goes to the left
   - the reaction goes to the right
   - nothing will happen

MEASURE 3 TYPE: Direct

MEASURE 3 RESULTS:

<table>
<thead>
<tr>
<th>Question Number</th>
<th>% Score</th>
<th>Benchmark</th>
<th>Passed Benchmark?</th>
</tr>
</thead>
<tbody>
<tr>
<td>HW 5-5</td>
<td>98.6</td>
<td>75</td>
<td>Y</td>
</tr>
<tr>
<td>HW 5-11</td>
<td>90.95</td>
<td>75</td>
<td>Y</td>
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<td>HW 5-12</td>
<td>89.02</td>
<td>75</td>
<td>Y</td>
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<td>HW 5-14</td>
<td>92.4</td>
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<td>Y</td>
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<td>HW 5-15</td>
<td>98.3</td>
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<td>Y</td>
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<tr>
<td>Exam 2 / 8</td>
<td>78.26</td>
<td>65</td>
<td>Y</td>
</tr>
<tr>
<td>Exam 2 / 9</td>
<td>95.65</td>
<td>65</td>
<td>Y</td>
</tr>
<tr>
<td>Exam 2 / 10</td>
<td>86.96</td>
<td>65</td>
<td>Y</td>
</tr>
<tr>
<td>Exam 2 / 11</td>
<td>86.96</td>
<td>65</td>
<td>Y</td>
</tr>
</tbody>
</table>
TARGET LEVEL ACHIEVEMENT

Met

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Due to the % range (89.02% - 98.3% for Sapling Homework, 78.26% - 100% for exam questions, and 69.57% - 95.65% for final questions), the students seem to understand equilibrium and are able to use it both qualitatively and quantitatively. Only one of the questions in all of the measures (Measure 3, on pressure effects on a reaction) fell close the benchmark of 65% (at 69.57%, possibly due to the time between its study and the final). Because of this and the fact that it was unique in that it not only has its own original subject-matter (Le Chatelier's Principle), it also includes another outcome (ICE Table, Outcome 1), this is a strong measure of student success in CHM 152.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

In measure 1, even though the students scored high on the assessments (89.02% - 98.3%), the percentages were based on the number of correct and incorrect students (i.e. students who attempted the question). Students who didn’t attempt the question were ignored, because it is difficult to determine the reason the student didn't do the question (examples include couldn't finish before due date, the question looked hard, and/or the student dropped the class). Thus, the % score could be less. Also, there is a drop of the %range of the final (69.57% - 95.65%) vs. the exams (78.26% - 100%). The amount of time between exams (midterm vs. end of semester) could be a cause of this result.

ADDITIONAL COMMENTS:

The benchmark for the Exam and Final questions was set at 65%, which is the lowest score a student can attain and achieve a passing score in CHM 152. The benchmark for the Sapling Learning homework questions was arbitrarily set at 75%, due to the assumption that the student would have more time and resources to correctly answer this assessment. Sapling Homework results were downloaded directly from their website (saplinglearning.com) and compiled on a spreadsheet. The %'s given take into account the number of students correct and incorrect on a question. Exam questions were a mixture of multiple choice (2 pts for correct, 0 for incorrect) and short answer (based on how correct the student was) and the final all multiple choice.

1. Try to determine a better way to estimate the number of students who answer a question on Sapling.
2. To help with the final scores, perhaps assessing some of the questions as short answer would be better.
3. Despite the high %range, it is always a good idea to find ways to improve the teaching of this subject (equilibrium), especially placing them in context with the rest of chemistry. This can be accomplished in the lecture (with more examples), or in lab (with specific hands-on activities).

COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION

Planned Changes

CHANGE METHODS OF DATA COLLECTION

Planned Changes

DESCRIBE CHANGES

Change the final so some of the equilibrium questions are short answer, and ensuring that the study of equilibrium is placed in context.

PERSON/ GROUP RESPONSIBLE FOR ACTION

Robert Killin

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

12/31/2018

PRIORITY

High

Course Outcome

Successful determination of reaction rates and factors affecting reaction rate.
AY 2017-2018

MEASURE 1:

The average student score (N ~ 35) on the following Sapling Learning online homework questions will be 75 % or higher:

HW 9 - 1)

The decomposition of $N_2O_5$ can be described by the equation

$$2N_2O_5(salt) \rightarrow 4NO_2(salt) + O_2(g)$$

<table>
<thead>
<tr>
<th>$t$ (s)</th>
<th>$[N_2O_5]$ (M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1.73</td>
</tr>
<tr>
<td>205</td>
<td>1.52</td>
</tr>
<tr>
<td>486</td>
<td>1.27</td>
</tr>
<tr>
<td>785</td>
<td>1.06</td>
</tr>
</tbody>
</table>

Given these data for the reaction at 45°C in carbon tetrachloride solution, calculate the average rate of reaction for each successive time interval.

Interval: 0 s to 205 s  
205 s to 486 s  
486 s to 785 s

Reaction rate:

<table>
<thead>
<tr>
<th>Number</th>
<th>M/s</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

HW 9 - 2)

Determine the average rate of change of B from $t=0$ s to $t=362$ s.

$$A \rightarrow 2B$$

<table>
<thead>
<tr>
<th>Time (s)</th>
<th>Concentration of A (M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0.680</td>
</tr>
<tr>
<td>181</td>
<td>0.415</td>
</tr>
<tr>
<td>362</td>
<td>0.150</td>
</tr>
</tbody>
</table>

HW 9 - 3)

Consider the reaction described by the following equation.

$$C_2H_4Br_2(aq) + 3I^- (aq) \rightarrow C_2H_4(aq) + 2Br^- (aq) + I_3^- (aq)$$

The rate law is

$$rate = k[C_2H_4Br_2][I^-]$$

where $k = 4.55 \times 10^{-3}$ M$^{-1} \cdot $s$^{-1}$

What are the missing entries in the following table?

<table>
<thead>
<tr>
<th>Run</th>
<th>$[C_2H_4Br_2]$ (M)</th>
<th>$[I^-]$ (M)</th>
<th>Initial rate of formation of $C_2H_4$ (M $\cdot$ s$^{-1}$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$x$</td>
<td>0.295</td>
<td>0.00158</td>
</tr>
<tr>
<td>2</td>
<td>0.295</td>
<td>$y$</td>
<td>0.000792</td>
</tr>
<tr>
<td>3</td>
<td>0.295</td>
<td>0.295</td>
<td>$z$</td>
</tr>
</tbody>
</table>

$x =$  
$y =$  
$z =$

HW 9 - 4)

Consider this reaction and its rate law.

$$2A + 2B \rightarrow \text{products}$$

rate $= k[B]$

What is the order with respect to $A$?  
What is the order with respect to $B$?  
What is the overall reaction order?
For the following rate law
\[ \text{rate} = k[A]^x \]
determine the value of \( x \) if

(a) the rate doubles when \([A]\) is doubled.

\( x = \) 

(b) no change in rate occurs when \([A]\) is doubled.

\( x = \) 

HW 9 - 5)

HW 9 - 6)

Using the given data, determine the rate constant of this reaction.

\[ A + 2B \rightarrow C + D \]

<table>
<thead>
<tr>
<th>Trial</th>
<th>([A] \text{M})</th>
<th>([B] \text{M})</th>
<th>Rate (M/s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.380</td>
<td>0.380</td>
<td>0.0196</td>
</tr>
<tr>
<td>2</td>
<td>0.380</td>
<td>0.760</td>
<td>0.0196</td>
</tr>
<tr>
<td>3</td>
<td>0.760</td>
<td>0.380</td>
<td>0.0784</td>
</tr>
</tbody>
</table>

\( k = \) 

HW 9 - 7)

The rate constant for this first-order reaction is 0.650 s\(^{-1}\) at 400 °C.

\[ A \rightarrow \text{products} \]

How long (in seconds) would it take for the concentration of \( A \) to decrease from 0.660 M to 0.380 M?

\( \) 

HW 9 - 8)

Iridium-192 is one radioisotope used in brachytherapy, in which a radioactive source is placed inside a patient's body to treat cancer. Brachytherapy allows the use of a higher than normal dose to be placed in the tumor while lowering the risk of damage to healthy tissue. Iridium-192 is often used in the head or b

Answer the following three questions (a, b, and c) based on the radioactive decay curve of iridium-192, shown below. Click on the graph and move the mouse over a point to get values for that point.

Sample remaining (%) vs. Time (days)

[Graph showing radioactive decay]
a) If the initial sample is 4.00 g, what mass of the original iridium-192 remains after 55 days?

b) Estimate the half-life of the radionuclide.

c) How many days would it take for one-third of the sample to decay?

HW 9 - 9)

The half-lives of different medical radionuclides are given in the table below. If the initial amount of arsenic-74 is 2.3 mCi, how much arsenic-74 is left in the body after 54 days?

<table>
<thead>
<tr>
<th>Radioisotope</th>
<th>Half-life (days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>arsenic-74</td>
<td>18</td>
</tr>
<tr>
<td>Iodine-131</td>
<td>8</td>
</tr>
<tr>
<td>phosphorus-32</td>
<td>14</td>
</tr>
<tr>
<td>chromium-51</td>
<td>28</td>
</tr>
</tbody>
</table>

HW 9 - 10)

Iodine-131 is a radioactive isotope. After 7.00 days, 54.7% of a sample of $^{131}$I remains. What is the half-life of $^{131}$I?

HW 9 - 11)

A fossil is found to have a $^{14}$C level of 67.0% compared to living organisms. How old is the fossil?

MEASURE 1 TYPE:
Direct

MEASURE 1 RESULTS:
The average student score (N ~ 35) on the following exam questions will be 65% or higher:

Exam 3 – 13) In the balanced equation \(2\text{KClO}_3 \rightarrow \text{2KCl} + 3\text{O}_2\), which of the following reaction rates is incorrect?

a. \(\text{rate} = \frac{\Delta [\text{O}_2]}{3 \Delta t}\) 

b. \(\text{rate} = \frac{\Delta [\text{KCl}]}{2 \Delta t}\) 

c. \(\text{rate} = \frac{\Delta [\text{KClO}_2]}{2 \Delta t}\) 

d. All of these are incorrect

Exam 3 – 14) Using the balanced equation in the above question, what is the rate of reaction if the concentration of \(\text{KClO}_3\) went from 2.5 M to 1.3 M in 49 seconds?

-0.0122 M/s
0.0245 M/s
0.0245 M/s
0.0122 M/s

Exam 3 – 17) In a 2nd order rate law, if you double the concentration of a reactant, the rate will increase ___ times and the rate would equal to ___.

- 4, \(k[Z]^4\)
- 2, \(k[Z]^2\)
- 4, \(k[Z]^2\)
- 2, \(k[Z]^4\)

Exam 3 – 2 – parts a thru d) You do an experiment with this reaction and collect the following data:

<table>
<thead>
<tr>
<th>[\text{N}_2]\text{init} (\text{M})</th>
<th>[\text{O}_2]\text{init} (\text{M})</th>
<th>Initial Rate (M/s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.25</td>
<td>0.10</td>
<td>4.5x10^{-2}</td>
</tr>
<tr>
<td>0.50</td>
<td>0.10</td>
<td>0.18</td>
</tr>
<tr>
<td>0.25</td>
<td>0.20</td>
<td>9.0x10^{-2}</td>
</tr>
</tbody>
</table>

- Based on this data, what is the rate equation for this reaction? (3 pts)
- Use your rate equation to calculate \(k\). (3 pts)
- Use your \(k\) from the question above to determine the half-life of the reaction. (3 pts)
- Use your value for \(k\) in the question above and the integrated rate law to calculate how long it would take for 0.01 M of \(\text{N}_2\) to reduce to 0.0035 M. (3 pts)
MEASURE 3:

The average student score (N = 35) on the following final exam questions will be 65% or higher:

30) In the balanced equation $2H_2 + O_2 \rightarrow 2H_2O$, which of the following reaction rates is incorrect?

   a. $rate = -\frac{1}{2} \frac{\Delta [O_2]}{\Delta t}$
   b. $rate = -\frac{1}{2} \frac{\Delta [H_2O]}{\Delta t}$
   c. $rate = -\frac{1}{2} \frac{\Delta [H_2]}{\Delta t}$
   d. All of these are incorrect

1. Using the balanced equation in question 30, what is the rate of reaction if the concentration of $H_2$ went from 2.5 M to 1.3 M in 49 seconds?

   -0.0122 M/s
   0.0245 M/s
   -0.0245 M/s
   0.0122 M/s

36) A 25.9 mg sample of a newly discovery isotope was analyzed and found to contain only 14.2 mg after a period of 69.2 hours. What is the k?

   -0.00868
   115.1
   -115.1
   0.00868

What is the rate equation for this data? (4 pts)

Use the rate equation from the previous question to calculate k. (3 pts)

Use your k from the question above to determine the half-life of the reaction. (3 pts)

Use your value for k in the question above and the integrated rate law to calculate how long it would take for 0.1 M of O₂ to reduce to 0.048 M. (3 pts)
FINDINGS

<table>
<thead>
<tr>
<th>Question Number</th>
<th>% Score</th>
<th>Benchmark</th>
<th>Passed Benchmark?</th>
</tr>
</thead>
<tbody>
<tr>
<td>HW 9-1</td>
<td>96.1</td>
<td>75</td>
<td>Y</td>
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<tr>
<td>HW 9-2</td>
<td>91.04</td>
<td>75</td>
<td>Y</td>
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<tr>
<td>HW 9-3</td>
<td>97.1</td>
<td>75</td>
<td>Y</td>
</tr>
<tr>
<td>HW 9-4</td>
<td>97.8</td>
<td>75</td>
<td>Y</td>
</tr>
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<td>HW 9-5</td>
<td>98.3</td>
<td>75</td>
<td>Y</td>
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<td>97.8</td>
<td>75</td>
<td>Y</td>
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<td>75</td>
<td>Y</td>
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<td>HW 9-8</td>
<td>70.71</td>
<td>75</td>
<td>N</td>
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<tr>
<td>Exam 3 / 13</td>
<td>73.91</td>
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<td>Exam 3 / 14</td>
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<td>Exam 3 / 17</td>
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<td>Y</td>
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<td>Exam 3 / 2a</td>
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<tr>
<td>Exam 3 / 2b</td>
<td>86.96</td>
<td>65</td>
<td>Y</td>
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<tr>
<td>Exam 3 / 2c</td>
<td>95.65</td>
<td>65</td>
<td>Y</td>
</tr>
<tr>
<td>Exam 3 / 2d</td>
<td>91.3</td>
<td>65</td>
<td>Y</td>
</tr>
<tr>
<td>Final / 30</td>
<td>78.26</td>
<td>65</td>
<td>Y</td>
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<tr>
<td>Final / 31</td>
<td>65.22</td>
<td>65</td>
<td>Y</td>
</tr>
<tr>
<td>Final / 36</td>
<td>82.61</td>
<td>65</td>
<td>Y</td>
</tr>
<tr>
<td>Final / 2a</td>
<td>86.96</td>
<td>65</td>
<td>Y</td>
</tr>
<tr>
<td>Final / 2b</td>
<td>98.55</td>
<td>65</td>
<td>Y</td>
</tr>
<tr>
<td>Final / 2c</td>
<td>100</td>
<td>65</td>
<td>Y</td>
</tr>
<tr>
<td>Final / 2d</td>
<td>95.65</td>
<td>65</td>
<td>Y</td>
</tr>
</tbody>
</table>

TARGET LEVEL ACHIEVEMENT

Met

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Due to the % range (70.51% - 99.4% for Sapling Homework, 78.26% - 100% for exam questions, and 69.57% to 95.65% for final questions), the students seem to understand Kinetics in a general-manner and are able to use data to determine kinetic information. Of all of the outcomes, this one had the most questions assessed, because of its importance in chemistry and its lack of assessment throughout the semester (only 1 exam and the final, along with 1 homework section).

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

In measure 1, even though the students scored high on the assessments (70.51% - 99.4%), the percentages were based on the number of correct and incorrect students (i.e. students who attempted the question). Students who didn't attempt the question were ignored, because it is difficult to determine the reason the student didn't do the question (examples include couldn't finish before due date, the question looked hard, and/or the student dropped the class). Thus, the % score could be less.

Also, of all of the outcomes in CHM 152, this has the only measure below the benchmark (HW 9-8), along with one near the benchmark of 65% (Final / 31 at 65.22%). HW 9-8 was a multistep problem that some students gave up on due to length, while Final / 31’s most common wrong answer was response A (which is the negative of the correct answer), hinting that students saw the negative signs in the previous question and kept the wrong sign in. A note is
that the students didn’t have this issue earlier in Exam 3 / 13 & 14, as the signs were all positive.

ADDITIONAL COMMENTS:
The benchmark for the Exam and Final questions was set at 65%, which is the lowest score a student can attain and achieve a passing score in CHM 152. The benchmark for the Sapling Learning homework questions was arbitrarily set at 75%, due to the assumption that the student would have more time and resources to correctly answer this assessment.

Sapling Homework results were downloaded directly from their website (saplinglearning.com) and compiled on a spreadsheet. The %’s given take into account the number of students correct and incorrect on a question.

Exam questions were a mixture of multiple choice (2 pts for correct, 0 for incorrect) and short answer (based on how correct the student was) and the final all multiple choice.

1. Try to determine a better way to estimate the number of students who answer a question on Sapling.

2. To help with the final score, assessing kinetics through short answer questions or to avoid a negative sign connotation would be better approaches.

3. Despite the high %range, it is always a good idea to find ways to improve the teaching of this subject. This can be accomplished both in lecture (with more examples, an emphasis in utilization of kinetics data, and the joining of nuclear chemistry with kinetics) and in lab (using specific hands-on activities).

COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION

Planned Changes

CHANGE METHODS OF DATA COLLECTION

Planned Changes

DESCRIBE CHANGES

Change the final so Kinetics have some short answer questions / there is no issues with the sign of the answer; and ensuring that Kinetics are placed in context (with more examples, emphasis on kinetics data, connecting kinetics with nuclear chemistry, and more hands-on activities in lab).

PERSON/ GROUP RESPONSIBLE FOR ACTION

Robert Killin

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

12/31/2018

PRIORITY

High

Course Outcome

Successful manipulation of initial, change, and equilibrium (ICE) Tables in different situations (solubility / Ksp, equilibrium, and acid / base).

AY 2017-2018

MEASURE 1:
The average student score (N ~ 35) on the following Sapling Learning online homework questions will be 75 % or higher:
HW 3-18)

What concentration of SO₃²⁻ is in equilibrium with Ag₂SO₃(s) and 3.50 × 10⁻³ M Ag⁺?
The Ksp of Ag₂SO₃ can be found here.

[SO₃²⁻] = □ M
HW 3-19)

A reaction produces 0.871 moles of \( \text{H}_2\text{O} \). How many molecules are produced?

Number

\( \boxed{} \) molecules

HW 5-8)

For each compound below, click in the box to toggle the direction of bond polarity (leave the box blank for a nonpolar bond).

\( \text{Br-Br} \)

\( \text{H-Cl} \)

\( \text{F-CH}_3 \)

HW 5-11)

Consider the following reaction.

\[
\text{A}(aq) \rightleftharpoons 2\text{B}(aq) \quad K_c = 4.96 \times 10^{-4} \quad \text{at 500 K}
\]

If a 2.30 M sample of A is heated to 600 K, what is the concentration of B at equilibrium?

\[
[B] = \boxed{} \text{ M}
\]

HW 7-7)
If the $K_a$ of a monoprotic weak acid is $8.8 \times 10^{-6}$, what is the pH of a 0.27 M solution of this acid?

$$\text{pH} = $$

**HW 7-8)**

Enough of a monoprotic acid is dissolved in water to produce a 0.0169 M solution. The pH of the solution is 2.70. Calculate the $K_a$ for the acid.

$$K_a = $$

**MEASURE 1 TYPE:**

Direct

**MEASURE 1 RESULTS:**

![Score Chart](https://azwestern.tk20.com/campustoolshighered/jsp/k12/reports/_6efe57...

**MEASURE 2:**

The average student score (N ~ 35) on the following exam questions will be 65 % or higher:

**Exam 1-9a)** Fill out the following ICE Table for MX₂ (using S to represent molar solubility). (6 pts)

<table>
<thead>
<tr>
<th></th>
<th>$M^2+$</th>
<th>$2X^-$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equilibrium</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Exam 1-9b)** Based on the given value of $K_{sp}$ and your ICE Table, what is the molar solubility of MX₂? (3 pts)

**Exam 2-2b)**

<table>
<thead>
<tr>
<th></th>
<th>$N_2$</th>
<th>$3F_2$</th>
<th>$2NF_3$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial</td>
<td>0.75</td>
<td>0.91</td>
<td>0</td>
</tr>
<tr>
<td>Change</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equilibrium</td>
<td></td>
<td>0.46</td>
<td></td>
</tr>
</tbody>
</table>
Fill out the empty spots of this ICE table based on the given information (5 pts)
Exam 2-2c) Based on your ICE table, calculate K. Which side of the reaction is favored? (4 pts)
Exam 3-3a) Fill out the empty spots of the following ICE table for benzoic acid (HC₇H₅O₂) which has a Kₐ of 6.5x10⁻⁵. Use a variable where needed. (8 pts)

<table>
<thead>
<tr>
<th></th>
<th>HC₇H₅O₂</th>
<th>H⁺</th>
<th>C₇H₅O₂⁻</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial</td>
<td>0.43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equilibrium</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Exam 3-3b) Based on your ICE table and the value of Kₐ, calculate H⁺. (3 pts)

MEASURE 2 TYPE:
Direct

MEASURE 2 RESULTS:

MEASURE 3:
The average student score (N ~ 35) on the following final exam questions will be 65 % or higher:
1b) Use the reaction 2NO₂(g) ⇌ 2NO(g) + O₂(g) to fill in the following ICE Table (5 pts)

<table>
<thead>
<tr>
<th></th>
<th>2NO₂</th>
<th>2NO</th>
<th>O₂</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial</td>
<td>0.75</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Change</td>
<td></td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Equilibrium</td>
<td>0.45</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1c) Using the above ICE Table, what is the K of the reaction? Is the reaction at equilibrium, favoring the products, or favoring the reactants? (4 pts)
3a) Answer the following questions using the ICE table below. The acid is acetic acid (HC₂H₃O₂) which has a Kₐ of 1.8x10⁻⁵ (8 pts)

<table>
<thead>
<tr>
<th></th>
<th>HC₂H₃O₂</th>
<th>H⁺</th>
<th>C₂H₃O₂⁻</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equilibrium</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3b) What is the pH of this solution? (3 pts)

MEASURE 3 TYPE:
Direct

MEASURE 3 RESULTS:
FINDINGS

<table>
<thead>
<tr>
<th>Question Number</th>
<th>% Score</th>
<th>Benchmark</th>
<th>Passed Benchmark?</th>
</tr>
</thead>
<tbody>
<tr>
<td>HW 3-18</td>
<td>94.79</td>
<td>75</td>
<td>Y</td>
</tr>
<tr>
<td>HW 3-19</td>
<td>77.52</td>
<td>75</td>
<td>Y</td>
</tr>
<tr>
<td>HW 5-8</td>
<td>84.96</td>
<td>75</td>
<td>Y</td>
</tr>
<tr>
<td>HW 5-11</td>
<td>90.95</td>
<td>75</td>
<td>Y</td>
</tr>
<tr>
<td>HW 7-7</td>
<td>91.83</td>
<td>75</td>
<td>Y</td>
</tr>
<tr>
<td>HW 7-8</td>
<td>88.2</td>
<td>75</td>
<td>Y</td>
</tr>
<tr>
<td>Exam 1 / 9a</td>
<td>66.67</td>
<td>65</td>
<td>Y</td>
</tr>
<tr>
<td>Exam 1 / 9b</td>
<td>65.33</td>
<td>65</td>
<td>Y</td>
</tr>
<tr>
<td>Exam 2 / 1b</td>
<td>94.78</td>
<td>65</td>
<td>Y</td>
</tr>
<tr>
<td>Exam 2 / 1c</td>
<td>92.39</td>
<td>65</td>
<td>Y</td>
</tr>
<tr>
<td>Exam 3 / 3a</td>
<td>85.5</td>
<td>65</td>
<td>Y</td>
</tr>
<tr>
<td>Exam 3 / 3b</td>
<td>81.52</td>
<td>65</td>
<td>Y</td>
</tr>
<tr>
<td>Final / 1b</td>
<td>92.17</td>
<td>65</td>
<td>Y</td>
</tr>
<tr>
<td>Final / 1c</td>
<td>91.3</td>
<td>65</td>
<td>Y</td>
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<tr>
<td>Final / 3a</td>
<td>96.74</td>
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<td>Y</td>
</tr>
<tr>
<td>Final / 3b</td>
<td>91.3</td>
<td>65</td>
<td>Y</td>
</tr>
</tbody>
</table>

TARGET LEVEL ACHIEVEMENT

Met

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Due to the % range (77.52% - 94.79% for Sapling Homework, 65.33% - 94.78% for exam questions, and 91.3% to 96.74% for final questions), the students seem to understand the ICE Table and are able to use the results of the table to calculate data. Because of this and the fact that it was assessed multiple times (3 different exams and the final) and was used in 3 different occasions (once for solubility of salts, once for equilibrium, and once with acids and bases) throughout the semester, this is one of the strongest (if not the actual strongest) measure of student success in CHM 152.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

In measure 1, even though the students scored high on the assessments (77.52% - 94.79%), the percentages were based on the number of correct and incorrect students (i.e. students who attempted the question). Students who didn’t attempt the question were ignored, because it is difficult to determine the reason the student didn’t do the question (examples include couldn’t finish before due date, the question looked hard, and/or the student dropped the class). Thus, the % score could be less.

Also, two of the questions in all of the measures (Measure 2, on using the results of the ICE Table to calculate solubility) came close to the benchmark of 65% (at 65.33% and 66.67%). This was because the data came from the first exam (when the students were not experienced with the ICE Table) and it was at the end of the exam (several were left unanswered).

ADDITIONAL COMMENTS:

The benchmark for the Exam and Final questions was set at 65%, which is the lowest score a student can attain and achieve a passing score in CHM 152. The benchmark for the Sapling Learning homework questions was arbitrarily set at 75%, due to the assumption that the student would have more time and resources to correctly answer this assessment.

Sapling Homework results were downloaded directly from their website (saplinglearning.com) and compiled on a spreadsheet. The %'s given take into account the number of students correct and incorrect on a question. Exam questions were a mixture of multiple choice (2 pts for correct, 0 for incorrect) and short answer (based on how correct the student was) and the final similar to the exams.
1. Try to determine a better way to estimate the number of students who answer a question on Sapling.

2. Since the scores for Exam 1/9a and 1/9b were almost at the benchmark (and several students left it unfinished as it was the last exam question), repositioning them closer to the front of the exam would be helpful.

3. Despite the high %range, it is always a good idea to find ways to improve the teaching of this subject (ICE Tables), especially placing them in context with the rest of chemistry. Having the students construct an ICE Table using data inputted into a spreadsheet would be one example of this.

<table>
<thead>
<tr>
<th>COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planned Changes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CHANGE METHODS OF DATA COLLECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planned Changes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DESCRIBE CHANGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Move some of the ICE Table questions from the end of exams and ensuring that the usage of ICE Tables is placed in context (either through lecture or lab experiments).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PERSON/ GROUP RESPONSIBLE FOR ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robert Killin</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TARGET DATE FOR IMPLEMENTATION OF THE ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/31/2018</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRIORITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
</tr>
</tbody>
</table>
Course Outcome

Upon satisfactory completion of the course, students will be able to determine the relative stereochemical configuration about a chiral atom, namely carbon, and the stereoisomeric relationship between chiral molecules.

AY 2017-2018

MEASURE 1:

**Outcome 2, Measure 1**

Are the two molecules below enantiomers (E) or diastereomers (D)?

\[(2R,3S)-2\text{-bromo-3-chloropentane}\]

\[
\begin{array}{c}
\text{CH}_3 \text{CH}_3 \\
\text{Cl} \quad \text{H} \\
\text{H} \quad \text{Br} \\
\text{CH}_3
\end{array}
\]
MEASURE 2:

**Outcome 2, Measure 2**

Below right is the skeletal structure for menthol, which is obtained from corn or other mint oils. Menthol has local anesthetic and counterirritant qualities; these qualities it is widely used to relieve minor throat irritation. What is the stereoisomer, if any?

Answer: __________

![Chemical structure of menthol](image)
MEASURE 2 TYPE: Direct
MEASURE 2 RESULTS:

<table>
<thead>
<tr>
<th>Measure</th>
<th>Benchmark</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>75</td>
<td>63</td>
</tr>
</tbody>
</table>

Success Rates, %, for Outcome 2

Results O2, M2: 10/16 = 63% correct

<table>
<thead>
<tr>
<th>Correct</th>
<th>Incorrect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

Incorrect answers: 0, 0, 2, 2, 3, 27

MEASURE 3:
Outcome 2, Measure 3

TRUE or FALSE: __________

MEASURE 3 TYPE: Direct

MEASURE 3 RESULTS:
MEASURE 4:

Outcome 2, Measure 4
Below is the sex pheromone of the California red scale, an armored insect and citrus. Which choice(s), if any, is (are) true?

Answer: 

- a. The relative configuration of the two chiral carbons is \( R \) and \( R \) (starting with chiral carbon attached to the alkene).
- b. The relative configuration of the two chiral carbons is \( R \) and \( S \) (starting with chiral carbon attached to the alkene).
- c. The relative configuration of the two chiral carbons is \( S \) and \( R \) (starting with chiral carbon attached to the alkene).
- d. none of the choices

Success Rates, %, for Outcome 2

<table>
<thead>
<tr>
<th>Measure</th>
<th>Benchmark</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>75</td>
<td>69</td>
</tr>
</tbody>
</table>

Results O2, M3: \( \frac{11}{16} = 69\% \text{ correct} \)

<table>
<thead>
<tr>
<th></th>
<th>Correct</th>
<th>Incorrect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>11</td>
<td>5</td>
</tr>
</tbody>
</table>
MEASURE 4 TYPE: Direct

Success Rates, %, for Outcome 2

<table>
<thead>
<tr>
<th>Measure</th>
<th>Benchmark</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>75</td>
<td>19</td>
</tr>
</tbody>
</table>

Results O2, M4: 3/16 = 19% correct; N = 16

<table>
<thead>
<tr>
<th>Choices</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>0</td>
<td>8</td>
<td>5</td>
<td>3</td>
</tr>
</tbody>
</table>

Correct Incorrect

| Total | 3 | 13 |
Outcome 2, Measure 5

The bark beetle has wreaked widespread destruction on the majestic Ponderosa pine forests of northern Arizona and the pine forests of the western USA and Canada. The molecule below right is the principal sex attractant and major aggregate pheromone for the bark beetle. Only the male produces it. Its enantiomer acts instead as a repellent.

\[ \text{cis-1} \text{-Ipsdienol; } \left[ \alpha \right]_D^{20} = +16.8^\circ \]

... when \( c = 1.0 \text{g/mL} \) and \( l = 14 \text{m} \)

Which choice(s), if any, is (are) true? Answer: 

a. \( \text{cis-1} \text{-Ipsdienol} \) rotates PPL in the opposite direction but the same magnitude as \( \text{trans-1} \text{-Ipsdienol} \). And the relative configuration of the chiral carbon in \( \text{cis-1} \text{-Ipsdienol} \) is (S).

b. \( \text{trans-1} \text{-Ipsdienol} \) rotates PPL in the opposite direction but the same magnitude as \( \text{cis-1} \text{-Ipsdienol} \). And the relative configuration of the chiral carbon in \( \text{trans-1} \text{-Ipsdienol} \) is (R).

c. neither choice
FINDINGS

Results O2, M5: 8/16 = 50% correct; N = 16

<table>
<thead>
<tr>
<th>Choices</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>8</td>
<td>8</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Correct</th>
<th>Incorrect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Measure</th>
<th>Benchmark</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>75</td>
<td>50</td>
</tr>
</tbody>
</table>

Success Rates, %, for Outcome 2

https://azwestern.tk20.com/campustoolshighered/jsp/k12/reports/_6efe57...
Results for Outcome 2:
As indicated in the table below the Target Level Achievement (TLA), aka Bel Rate, for student performance none of the five measures was met.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Success Rates, %, for Outcome 2</th>
<th>TLA Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>75</td>
<td>69</td>
</tr>
<tr>
<td>2</td>
<td>75</td>
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</tr>
<tr>
<td>3</td>
<td>75</td>
<td>69</td>
</tr>
<tr>
<td>4</td>
<td>75</td>
<td>19</td>
</tr>
<tr>
<td>5</td>
<td>75</td>
<td>50</td>
</tr>
</tbody>
</table>

TARGET LEVEL ACHIEVEMENT
*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
None really. The instructor is a bit puzzled at the underwhelming student performance. Why? It’s not like this was the first time students had seen questions like those. On the contrary similar questions were asked repeatedly on semester quizzes and the two semester exams. And discussion of stereochemistry begins late September/early October. So come the Final Comprehensive Exam students will have had at least 9-10 weeks preparation in stereochemistry. And students do two labs based on stereochemistry.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Overall, the instructor is disappointed with student performance given the amount of time devoted to discussion of stereochemistry in lecture and two labs devoted to it. But nevertheless the results are underwhelming. At least for Measures 1 & 3 student performance was close to meeting the Benchmark, 75% vs. 69%. For Measure 2 student performance was 12% (percentage points) below Benchmark.

What the heck happened for Measures 4 & 5 is unknown. Again, both questions were direct, straight-forward. Students had seen such questions before on previous assignments. For Measure 4 only a few less students incorrectly answered C as B so the distribution of incorrect answers is not overwhelming one way or the other. This indicates to me that students misinterpreted the stereochemical significance of the wedged triangle, which indicates that the atom or group of atoms face away from the viewer. This in turn allows one to correctly gauge the relative stereochemical environment in the immediate proximity. The chances of propagating this mistake double since there are two wedged triangles in the molecule. But again they had had multiple questions like this before.

Measure 5 really perplexes me. There is only one chiral (stereochemical) carbon and the solid wedge indicates that that group of atoms faces the viewer. So applying the guide for interpreting the immediate stereochemical environment is straight-forward. But obviously students misapplied the interpretative guide.

1. None really. Why? This is a seminal topic in CHM 235. A lot of time is devoted to this topic and I have developed instructional videos to supplement lecture material. Fall 2015 and 2016 assessments of similar questions were below expectations but not by much. If those assessments would have been worse, then perhaps a new approach with major modifications would be warranted.

DESCRIBE CHANGES
none

PERSON/GROUP RESPONSIBLE FOR ACTION
Scott Donnelly

PRIORITY
Low

Course Outcome
Upon satisfactory completion of the course, students will be able to
interpret infrared (IR) spectra as it relates to molecular structure or reactions.

AY 2017-2018

MEASURE 1:

Outcome 1, Measure 1
O1, M1 Question where O = Outcome and M = Measure:
What does the past smell like? That is, what gives old books their characteristic smells? Researchers at the University College London have commenced a study to determine just that. The idealized IR for one of those compounds identified is shown below. Let's call the unknown odiferous compound- Fergie. Based on the basic information in the IR, complete the tables below.

![IR spectrum graph](https://azwestern.tk20.com/campustoolshighered/jsp/k12/reports/_6efe57...)

<table>
<thead>
<tr>
<th>%T</th>
<th>4000</th>
<th>3500</th>
<th>3000</th>
<th>2500</th>
<th>2000</th>
<th>1500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stretching Frequency, cm⁻¹</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Does Fergie Contain Following Functional Groups and/or Bond Absorptions- YES/NO

<table>
<thead>
<tr>
<th>IHD = 0 or IHD ≥ 1</th>
<th>sp²-C-H</th>
<th>Alkene</th>
<th>Alkyne</th>
<th>Aldehyde</th>
<th>Vinylic Hydrogen(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Does Fergie Contain Following Functional Groups and/or Bond Absorptions- YES/NO

<table>
<thead>
<tr>
<th>Ketone</th>
<th>Ester</th>
<th>Amide</th>
<th>Nitrile</th>
<th>Alcohol</th>
<th>Carboxylic acid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
As indicated below for each organic functional group, 100% of students (N = 16) answered correctly at least 75% of the time for each functional group.

Results O1, M1: N = 16

<table>
<thead>
<tr>
<th>Functional Group</th>
<th>% of Students Who Answered Correctly</th>
</tr>
</thead>
<tbody>
<tr>
<td>sp²-C-H</td>
<td>75%</td>
</tr>
<tr>
<td>Alkene</td>
<td>94%</td>
</tr>
<tr>
<td>Alkyne</td>
<td>81%</td>
</tr>
<tr>
<td>Aldehyde</td>
<td>100%</td>
</tr>
<tr>
<td>Vinylic Hydrogen(s)</td>
<td>75%</td>
</tr>
<tr>
<td>Ketone</td>
<td>75%</td>
</tr>
<tr>
<td>Ester</td>
<td>75%</td>
</tr>
<tr>
<td>Amide</td>
<td>94%</td>
</tr>
<tr>
<td>Nitrile</td>
<td>94%</td>
</tr>
<tr>
<td>Alcohol</td>
<td>100%</td>
</tr>
<tr>
<td>Carboxylic acid</td>
<td>94%</td>
</tr>
</tbody>
</table>

Red box indicates that the answer is NO; blue box, YES.

**MEASURE 2:**

**Outcome 1, Measure 2**

Which reaction (a–f), if any, is supported by the change in IR spectra shown below?

---

%T

Wavenumber, cm⁻¹
MEASURE 2 TYPE: Direct

MEASURE 2 RESULTS:

<table>
<thead>
<tr>
<th>Measure</th>
<th>Benchmark</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>60</td>
<td>56</td>
</tr>
</tbody>
</table>

Success Rates, %, for Outcome 1

Results O1, M2: 9/16 = 56% correct; N = 16

<table>
<thead>
<tr>
<th>Choices</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>9</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Correct Incorrect

<table>
<thead>
<tr>
<th>Total</th>
<th>9</th>
<th>7</th>
</tr>
</thead>
</table>
Results for Outcome 1:
As indicated in the table below the Target Level Achievement (TLA), aka B Rate, for student performance was met for one of the two measures.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Benchmark</th>
<th>Actual</th>
<th>TLA Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>75</td>
<td>100</td>
<td>✓</td>
</tr>
<tr>
<td>2</td>
<td>60</td>
<td>56</td>
<td>X</td>
</tr>
</tbody>
</table>

TARGET LEVEL ACHIEVEMENT
*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Overall, the instructor is satisfied with the results for Fall 2017.

Strengths:
- The Benchmark for Measure 1 was convincingly met. Students did a very good job correctly interpreting the IR spectra with respect to identifying functional groups.
- Though the Benchmark for Measure 2 was not met, Nevertheless performance was just 4% (percentage points) from meeting the Benchmark. This is encouraging but...see Weaknesses.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
The instructor had hoped for more robust success with respect to Outcome 1, Measure 2 (60% Benchmark vs. 56% actual) particularly so given that discussion of IR spectroscopy begins late September and the question asked on the Final Comprehensive Exam is similar to questions asked in lecture activities, semester Exams 1 & 2 and Quizzes 3 and 4.

Four of the seven students that answered incorrectly chose F. How students missed the presence of the C=O functional group in the starting material and mistook the starting material as a saturated alcohol puzzles me as given the overwhelmingly absorption by the C=O.

1. None, stay the course.

DESCRIBE CHANGES
None

PERSON/ GROUP RESPONSIBLE FOR ACTION
scott donnelly

PRIORITY
Low

Course Outcome
Upon satisfactory completion of the course, students will be able to predict the products and/or determine the identity and/or quantity of reagents required of organic reactions that proceed via addition and elimination and oxidation/reduction mechanistic pathways, in addition to predicting the total number of product(s) and/or the product structure during ozonolysis (with or without reductive workup).

AY 2017-2018
 Outcome 3, Measure 1
The unsaturated acyclic molecule below was subjected to ozonolysis followed by reductive work up conditions.

The ozonolysis reaction forms multiple products. The dotted box below represents an internal section of the substrate that undergoes reaction. Draw the structure of the product formed from the ozonolysis with reductive workup of the internal section.
MEASURE 2:

Success Rates, %, for Outcome 3

<table>
<thead>
<tr>
<th>Measure</th>
<th>Benchmark</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>75</td>
<td>63</td>
</tr>
</tbody>
</table>

Results O3, M1: \( \frac{10}{16} = 63\% \) correct; \( N = 16 \)

<table>
<thead>
<tr>
<th>Product Structure Drawn Correctly</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>10</td>
<td>6</td>
</tr>
</tbody>
</table>

Outcome 3, Measure 2
Is the carbon to which the arrow points oxidized (O) or reduced (R) in the reaction?
MEASURE 2 TYPE: Direct

MEASURE 2 RESULTS:

<table>
<thead>
<tr>
<th>Measure</th>
<th>Benchmark</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>75</td>
<td>56</td>
</tr>
</tbody>
</table>

Results O3, M2: 9/16 = 56% correct; N = 16

<table>
<thead>
<tr>
<th>Correct</th>
<th>Incorrect</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>7</td>
</tr>
</tbody>
</table>

MEASURE 3:
Outcome 3, Measure 3

One mole of an acyclic unsaturated hydrocarbon undergoes ozonolysis with GC analysis of the ozonolysis product mixture shows three products. Quant the product mixture indicates that upon ozonolysis one mole of the a hydrocarbon forms- 2 moles formaldehyde (methanal), and one mole (propanone) and another product with molecular formula C₈H₆O₂ (its struc elucidated...oh darn!). Which choice (A-E), if any (F), is the probable struct unsaturated hydrocarbon?

Answer: ______

(A) [Diagram]
(B) [Diagram]
(C) [Diagram]
(D) [Diagram]
(E) [Diagram]
(F) none of
MEASURE 4:

Success Rates, %, for Outcome 3

<table>
<thead>
<tr>
<th>Measure</th>
<th>Benchmark</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>50</td>
<td>56</td>
</tr>
</tbody>
</table>

Results O3, M3: $\frac{9}{16} = 56\%$ correct; $N = 16$

<table>
<thead>
<tr>
<th>Choices</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>0</td>
<td>1</td>
<td>9</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

Correct | Incorrect
---|---
Total   | 9 | 7

MEASURE 4:

Outcome 3, Measure 4
Which choice (a.-m.), if any, describes the types of reactions required transformation described below?

Answer: __________

2-methyl-2-butene $\rightarrow$ 3-methyl-2-butanol $\rightarrow$ 3-methyl-2-butan

a. addition, substitution  b. substitution, addition

c. elimination, substitution  d. substitution, elimination

e. elimination, addition  f. addition, elimination

g. elimination, reduction  h. elimination, oxidation

i. addition, reduction  j. addition, oxidation

k. substitution, reduction  l. substitution, oxidation

m. multiplication, division  n. none of the choices
MEASURE 4 TYPE: Direct

MEASURE 4 RESULTS:

<table>
<thead>
<tr>
<th>Measure</th>
<th>Benchmark</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>50</td>
<td>38</td>
</tr>
</tbody>
</table>

Success Rates, %, for Outcome 3

Results O3, M4: 6/16 = 38% correct; N = 16

<table>
<thead>
<tr>
<th></th>
<th>Correct</th>
<th>Incorrect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>6</td>
<td>10</td>
</tr>
</tbody>
</table>

MEASURE 5:
Outcome 3, Measure 5

Below is the sex pheromone of the California red scale, an armored insect and major pest of citrus. Which choice(s), if any, is (are) true?

Answer(s): ____________

- e. If subjected to two molar equivalents of hydroboration-oxidation reagents, the product would contain one primary and one secondary alcohol group (in addition to the ester).
- f. If subjected to two molar equivalents of hydroboration-oxidation reagents, the product would contain one primary and tertiary alcohol group (in addition to the ester).
- g. If subjected to two molar equivalents of hydroboration-oxidation reagents, the product would contain two primary alcohol groups (in addition to the ester).
- h. 0.075 moles of the pheromone requires 0.025 moles molecular hydrogen gas for complete reduction of the alkene groups.
- i. 0.075 moles of the pheromone requires 0.075 moles molecular hydrogen gas for complete reduction of the alkene groups.
- j. 0.075 moles of the pheromone requires 0.150 moles molecular hydrogen gas for complete reduction of the alkene groups.
### Success Rates, %, for Outcome 3

<table>
<thead>
<tr>
<th>Measure</th>
<th>Benchmark</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>50</td>
<td>31</td>
</tr>
</tbody>
</table>

Results O3, M5: 5/16 = 31% correct*; N = 16

*: defined as percentage students that got both (2/2) answers correct

### Choices

<table>
<thead>
<tr>
<th></th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>3</td>
<td>3</td>
<td>7</td>
<td>1</td>
<td>3</td>
<td>11</td>
</tr>
</tbody>
</table>

### Overall Correct

<table>
<thead>
<tr>
<th></th>
<th>2/2</th>
<th>1/2</th>
<th>0/2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>5</td>
<td>8</td>
<td>3</td>
</tr>
</tbody>
</table>
Results for Outcome 3:
As indicated in the table below the Target Level Achievement (TLA), aka Be Rate, for student performance was met for only one of the five measures.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Benchmark</th>
<th>Actual</th>
<th>TLA Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>75</td>
<td>63</td>
<td>X</td>
</tr>
<tr>
<td>2</td>
<td>75</td>
<td>56</td>
<td>X</td>
</tr>
<tr>
<td>3</td>
<td>50</td>
<td>56</td>
<td>✔</td>
</tr>
<tr>
<td>4</td>
<td>50</td>
<td>38</td>
<td>X</td>
</tr>
<tr>
<td>5</td>
<td>50</td>
<td>31</td>
<td>X</td>
</tr>
</tbody>
</table>

TARGET LEVEL ACHIEVEMENT
*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Other than for Measure 3 student performance was definitely sub-par and with no encouraging trends. Of the four unmet Measures the closest to the Benchmark are Measures 1 and 4, both of which are 12% (percentage points) below.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

All the Measures deal with seminal reactions in first semester organic chemistry. Student performance is disappointing given the amount of time devoted in lecture to these reactions and the supplemental instructional videos created so students could augment their learning. Given these, the instructor expected that student performance would have at least met or been closer than 12% (percentage points) and more below the benchmark levels (except for Measure 3).

1. In a previous assessment year, the instructor wrote, A simple first step to increasing student performance is for the instructor to either end or begin each lecture with one of the four reaction types assessed. The thinking behind this is simple- the more students see and think about these reactions over the course of the semester, more they will likely increase their performance on the final comprehensive exam. This was done (when applicable and time permitting) but perhaps it needs to be done, regardless of constraints, in every lecture.

And the following website will be recommended (but not required)- https://www.masterorganicchemistry.com/- to supplement lecture and course assignments.

COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION

Planned Changes

DESCRIBE CHANGES

none

PERSON/ GROUP RESPONSIBLE FOR ACTION

Scott Donnelly

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

09/25/2018

PRIORITY

Low
CIS 105 Assessment Plan Data

Course Outcome

Describe the function of major computer hardware and software components.

AY 2017-2018

MEASURE 1:

Students will be evaluated on their knowledge of where computer hardware is used at each stage of the Input Output Processing Storage (IPOS) on the first day of class. The score of this evaluation is not figured into their score for the class. It is just used to get a feel of the students' prior knowledge. The students are not expected to have high scores for the quiz. It is only used to test their prior knowledge. The overall objective of this assessment is to track how the students' scores improve over the course of the semester. The second evaluation will be conducted around mid semester. The students will not be warned about the upcoming evaluation. The objective will be to measure how much the students learned over the course of the semester without memorizing the devices and their function.

One courses CIS 105-002 was used to track student progress on learning where devices are used in the Input Output Processing Storage (IPOS) Cycle:

A surprise tests was conducted. The quiz consists of 15 devices and the list of the four different stages of the IPOS Cycle. In addition, if the devices were storage devices - the students needed to indicate the type of computer storage it is, such as magnetic, optical, and solid stage. If the device was a printer, the students need to indicate the type of printer it is, such as impact and non-impact. The list would contain legacy devices to stress the importance of understanding how older devices grew over the years into the devices we have today. The quiz also contains current hardware. Even though some of the current hardware that the students will never use, they should understand what is available. It is also important to understand some of the advanced hardware they will never use is because it shows and demonstrates the potential growth of computer peripheral devices in the future.

MEASURE 1 TYPE: Indirect

MEASURE 1 RESULTS:

Result of Test / Attempt 1
CIS 105-002 ( 9 students)
4 students secured 100%
2 students secured 90-99%
3 students secured 80-89%.

This score will set the bar showing students progress and will measure over the course of the semester the students progress.

MEASURE 2:

Second surprise test was conducted. This 2nd Test consists of 20 questions (including wrong answers in 1st attempt and some new questions)

MEASURE 2 TYPE: Indirect

MEASURE 2 RESULTS:

CIS 105-002 ( 8 students)
7 students secured 100%
1 students secured 90-99%

All Scores improved over Attempt 2.
**EVIDENCE ATTACHMENTS:** TK20 assessment CIS105.pdf

**FINDINGS**

**Result of Test 1**  
CIS 105-002 (9 students)  
4 students secured 100%  
2 students secured 90-99%  
3 students secured 80-89%.  
This score will set the bar showing students progress and will measure over the course of the semester the students progress.

**Result 2**  
CIS 105-002 (8 students)  
7 students secured 100%  
1 student secured 90-99%  
*All Scores improved over Attempt 2.*

**TARGET LEVEL ACHIEVEMENT**

Met

**OVERALL SUMMARY OF FINDINGS**

Students performed satisfactory in their first attempt which is above benchmark of 75%. Still a review session conducted and a second surprise test conducted. Many students are not aware of various hardware components which looks similar. A good PowerPoint presentation based on various Hardware components will help them a lot.

**WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

**Result of Test 1**  
CIS 105-002 (9 students)  
4 students secured 100%  
2 students secured 90-99%  
3 students secured 80-89%.  
This score will set the bar showing students progress and will measure over the course of the semester the students progress.

**Result 2**  
CIS 105-002 (8 students)  
7 students secured 100%  
1 student secured 90-99%  
*All Scores improved over Attempt 2.*

Students performed satisfactory in their first attempt which is above benchmark of 75%. Still a review session conducted and a second surprise test conducted.

**WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

Many students are not aware of various hardware components which looks similar. A good PowerPoint presentation based on various Hardware components will help them a lot.

1. Many students are not aware of various hardware components which looks similar. A good PowerPoint presentation based on various Hardware components will help them a lot.
2. If students can get a chance to see various devices in Campus and their working then will understand the concept & working of those components.

<table>
<thead>
<tr>
<th>RESTRUCTURE OUTCOME STATEMENT</th>
<th>Planned Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>REVISE MEASUREMENT APPROACH</td>
<td>Planned Changes</td>
</tr>
<tr>
<td>COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION</td>
<td>Planned Changes</td>
</tr>
<tr>
<td>CHANGE METHODS OF DATA COLLECTION</td>
<td>Planned Changes</td>
</tr>
<tr>
<td>REVAMP SERVICES</td>
<td>Planned Changes</td>
</tr>
<tr>
<td>MAKE TECHNOLOGY RELATED IMPROVEMENTS</td>
<td>Planned Changes</td>
</tr>
<tr>
<td>MAKE PERSONNEL RELATED CHANGES</td>
<td>Planned Changes</td>
</tr>
<tr>
<td>IMPLEMENT ADDITIONAL TRAINING</td>
<td>Planned Changes</td>
</tr>
<tr>
<td>ADD NEW SERVICE(S) OR PROGRAM(S)</td>
<td>Planned Changes</td>
</tr>
<tr>
<td>DELETE SERVICE(S) OR PROGRAM(S)</td>
<td>Planned Changes</td>
</tr>
<tr>
<td>PERSON/ GROUP RESPONSIBLE FOR ACTION</td>
<td>Salil Dhawan</td>
</tr>
<tr>
<td>TARGET DATE FOR IMPLEMENTATION OF THE ACTION</td>
<td>12/31/2018</td>
</tr>
<tr>
<td>PRIORITY</td>
<td>High</td>
</tr>
</tbody>
</table>
CIS 120 Assessment Plan Data

Course Outcome

The General Education focus area of Digital Literacy is a key component of CIS 120 (Introduction to Computer Information Systems). Student will demonstrate comprehension of the Input Output Processing Storage (IPOS) Cycle. Students will evaluate and examine photos of various computer hardware (peripheral) devices and determine where the device fits into the Input Output Processing Storage (IPOS).

AY 2017-2018

MEASURE 1:

Students will be evaluated on their knowledge of where computer hardware is used at each stage of the Input Output Processing Storage (IPOS) on the first day of class. The score of this evaluation is not figured into their score for the class. It is just used to get a feel of the students' prior knowledge. The students are not expected to have high scores for the quiz. It is only used to test their prior knowledge. The overall objective of this assessment is to track how the students' scores improve over the course of the semester. The second evaluation will be conducted around mid semester. The students will not be warned about the upcoming evaluation. The objective will be to measure how much the students learned over the course of the semester without memorizing the devices and their function.

The quiz consists of 25 devices and the list of the four different stages of the IPOS Cycle. In addition, if the devices were storage devices - the students needed to indicate the type of computer storage it is, such as magnetic, optical, and solid stage. If the device was a printer, the students need to indicate the type of printer it is, such as impact and non-impact. The list would contain legacy devices to stress the importance of understanding how older devices grew over the years into the devices we have today. The quiz also contains current hardware. Even though some of the current hardware that the students will never use, they should understand what is available. It is also important to understand some of the advanced hardware they will never use is because it shows and demonstrates the potential growth of computer peripheral devices in the future.

Three courses were used to track student progress on learning where devices are used in the Input Output Processing Storage (IPOS) Cycle:
CIS 120-004;
CIS 120-005; and
CIS 120-006.

Since the students took this assessment on the first day of class and some of the questions are advanced, the benchmark score is not high. If the students scored between 5 to 10 questions correctly on this first day assessment that is acceptable. Two courses were used to track student progress on learning where devices are used in the Input Output Processing Storage (IPOS) Cycle:
CIS 120-002;
CIS 120-003;
A surprise test was conducted. The quiz consists of 15 devices and the list of the four different stages of the IPOS Cycle. In addition, if the devices were storage devices - the students needed to indicate the type of computer storage it is, such as magnetic, optical, and solid stage. If the device was a printer, the students need to indicate the type of printer it is, such as impact and non-impact. The list would contain legacy devices to stress the importance of understanding how older devices grew over the years into the devices we have today. The quiz also contains current hardware. Even though some of the current hardware that the students will never use, they should understand what is available. It is also important to understand some of the advanced hardware they will never use is because it shows and demonstrates the potential growth of computer peripheral devices in the future.

MEASURE 1 TYPE:
Direct

MEASURE 1 RESULTS:
CIS 120-004 (12 students)
6 students answered 7 or fewer questions correctly - (average of 28% or less)
6 students answered between 8 and 12 questions correctly - (average of 32% to 48%)
Overall Class Average - 8.77 questions answered correctly out of 25 questions - 35.08% - This score will set the bar showing students progress and will measure over the course of the semester the students progress.

CIS 120-005 - (24 students)
14 students answered 7 or fewer questions correctly - (average of 28% or less)
8 students answered between 8 and 12 questions correctly - (average of 32% to 48%)
2 students answered between 16 and 17 questions correctly - (average 60% to 69%)
Overall Class Average - 9.54 questions answered correctly out of 25 questions - 38.16%.

CIS 120-006 - (14 students)
8 students answered 7 or fewer questions correctly - (average of 28% or less)
5 students answered between 8 and 12 questions correctly - (average of 32% to 48%)
1 student answered between 13 and 14 questions correctly - (average of 52% to 56%)
Overall Class Average - 7.4 questions answered correctly out of 25 questions - 29.60%

All classes performed as expected by reaching the benchmark of answering 5 to 10 questions correctly. This is due to the fact, they were able to identify the equipment they come in contact with on a daily basics.

Result of Test 1
CIS 120-002 (9 students)
4 students secured 100%
2 students secured 90-99%
3 students secured 80-89%.
CIS 120-003 (13 students)
2 students secured 100%
6 students secured 90-99%
4 students secured 80-89%
1 student secured 70-79%

This score will set the bar showing students progress and will measure over the course of the semester the students progress.

MEASURE 2:
After the first day evaluation, class lectures will purposefully not focus on quiz questions. Lectures and class activities, as well as hands on lab exercises will cover
chapter materials. The items that were on the first day quiz will be reintroduced as they appear in the book chapters. Extra emphasis will not be placed on the items just because they were on the first day’s quiz. This will be done to see how students pick up on the items over the course of the normal lecture and classroom discussions and activities.

When the students are evaluated at mid semester, they will not be told prior to the quiz so they will not memorize the material they did not answer correctly. Since the students did not receive notice of the evaluation and the material was not covered directly, students scores should improve by an average of 5 points from the first evaluation.

The benchmark from the first attempt and the second attempt should only be expected to improve by 3 to 5 points since the students were not warned ahead of time about the assessment, and class time was not directly used to review assessment questions. The score expect to fall between 9 and 15. CIS 120-002 and CIS 120-003 the benchmark of more than 75% score for second attempt. 2nd Test consists of 20 questions ( wrong answer in 1st attempt and some new questions ) and a surprise test conducted.

**MEASURE 2 TYPE:**
Indirect

**MEASURE 2 RESULTS:**

CIS 120-004 - (11 students)
There was drastic improvement on the second attempt on the Input, Output, Processing and Storage (IPOS) Quiz over the first attempt, especially since the students did not review the quiz questions directly and were not told about the quiz ahead of time.

0 students answered 7 or fewer questions correctly on attempt #2 compared to 6 students on attempt #1 - This is a great improvement.
3 students answered between 8 and 12 questions correctly on attempt #2 compared to 6 students on attempt #1 - Again, excellent improvement.
1 student answered between 13 and 15 questions correctly on attempt #2 - Only one student scored in this range for a score between 52% to 60%. This is an improvement over attempt #1 when 0 students scored over 50%
On the first attempt of the IPOS Quiz the entire class of 12 students did not pass the quiz compared to only 3 students on attempt #2.
1 student answered between 16 or 17 questions correctly. 1 Student scored in this range for a score between 64% to 68% on attempt #2.
6 students achieved a score of 80% or higher on attempt #2 of the IPOS Quiz. This is over 50% of the class (taking into account that 1 less student took the quiz).

The score breakdown for the remaining 6 students:
3 students answered between 20 and 22 questions correctly - (average 80% to 88%).
3 students answered between 23 and 24 questions correctly - (average 92% to 96%).
Overall Class Average - was 17.1 for an average of 68.40% on attempt #2 compared to 35.08% on attempt #1 (overall improvement of 33% - Outstanding).

CIS 120-005 - (19 students)
The class overall average did improve but their scores did not improve as much as the other two courses.
On attempt #1 the average quiz score was 7.4 questions correctly answered out of 25 (average 29.60%)
On attempt #2 the average quiz score was 11.30 questions correctly answered out of 25 (average 45.50%)

The class average improved by 15.20% - This is still shows progress given that the students were not warned about the quiz ahead of time and we did not use class time to directly prepare for attempt #2.
5 students answered 7 or fewer questions correctly - (average 28%). This is a dramatic improvement over attempt #1 where 14 students answered 7 or less questions correctly on attempt #1.
8 students answered between 8 and 12 questions correctly - (average 32% to 48%). This is the same for both attempt #1 and attempt #2.
6 students answered 13 or more questions correctly, compared to only 2 students to answer 13 or more questions correctly on attempt #1.

2 students answered between 13 and 15 questions correctly - (average 52% to 60%).
2 students answered between 16 and 17 questions correctly - (average 64% to 68%). The figure is the same for both attempt #1 and attempt #2.

On attempt #1 there were 0 students that scored over 70% compared to 2 students that scored over 70% on attempt #2.
1 student answered between 18 and 19 questions correctly - (average 72% to 76%).
1 student answered between 20 and 22 questions correctly - (average 80% to 88%).

The students in CIS 120-005 should be proud of their current progress. After attempt #2, we will start reviewing areas where the students had difficulty. It is expected the students scores will improve even more.

Since the average score improved by only 15%, the students scores were evaluated even further. There are many positive aspects of their outcomes assessment. It was discovered that out of the 21 students that took the quiz 17 students improved their quiz score on attempt #2. Six students improved their score between 6 to 10 points, 2 students improved their score by 11 points or more and 7 Students improved their score by 2 to 5 points. This shows that even further progress is possible.

CIS 120-006 - (8 students)
There was dramatic improvement on attempt #2 over the first attempt especially since the students did not review the quiz questions directly and were not told about the quiz ahead of time.
1 student did not pass the Input, Output, Processing, and Storage (IPOS) Quiz on the second attempt (12 answered correctly - 48%)
1 student scored in the 60% range on the (IPOS) Quiz on the second attempt (17 answered correctly - 68%)

The score breakdown for the remaining 6 students:
3 students answered between 20 and 22 questions correctly - (average between 80% to 88%)
One student answered between 23 and 24 questions correctly - (average between 92% and 96%)
2 students answered all 25 questions correctly - (100%)

On the Second Attempt the Average Score was 20.75 for an Average of 83%
This is an improvement of 45.00% - This Class had the highest class average on attempt #2. The class also achieved the highest percent improvement between attempt #1 and #2. The Class was awarded a pizza party for this achievement.

The benchmark score for attempt 2 was to achieve a score of 9 and 15. Two of the classes exceeded the expected scores. Both classes are involved in class lectures and work hard. One class currently has 19 students. Even though their score is lower than the other two sections the score was in between the expected benchmark, Result of 2nd surprise test conducted for CIS 120-002 and CIS 120-003
CIS 120-002 ( 8 students)
7 students secured 100%
1 students secured 90-99%
CIS 120-003 (9 students)
MEASURE 3:

Before the third evaluation we reviewed the Devices in the IPOS Cycle several times. Games were implemented as a method of review. At first, many students in each class struggled to remember where the devices fit into the Input Output Processing Storage (IPOS) Cycle. Each of the class teams would be rearranged to motivate the students to remember the devices. The students were aware that the device quiz would be part of their final exam. Students were encouraged to take notes while playing games during class. The students were not provided the games to play at home. Their notes were their only method to review for the quiz.

Because much of the class time would be spent reviewing the devices over the span of several weeks, it was expected the students would dramatically improve over the previous two exams. It was expected that 100% of the students would score 70% or better on the third attempt of IPOS Devices quiz.

MEASURE 3 TYPE:

Direct

MEASURE 3 RESULTS:

CIS 120-004 (10 Students)

All Scores improved over Attempt 2.

5 students achieved a perfect score of 25 questions correct. Compared to 3 students who scored between 23 and 24 correct on Attempt 2.

3 students scored between 23 and 24 questions correct. Comparing Attempt 2 and Attempt 3; Attempt 3 - 8 students scored 23 or higher which means 8 students out of 10 scored above 92%. Compared to Attempt 2 where - 3 students scored 23 or 24.

The remaining 2 students scored 21 questions correct. 0 - students scored below 80% on Attempt 3.

Conclusion all students achieved the goal of 70% or higher because of the constant review using games.

CIS 120-005 - (16 Students)

This was a larger class and at times had trouble staying focused. But the students did improve their quiz scores from attempt 2. Attempt 3 - 2 students achieved a perfect score of 25 correct. Compared to the 2nd Attempt where the highest score was 22 correct. Attempt 3 - 6 students scored between 23 and 24 questions correct. Attempt 3 - in total 8 students scored 90% or higher compared to the second attempt where 0 Students scored higher than 90%.

Attempt 3 - 5 students scored between 20 and 22 correct. Total on Attempt 3 -13 students scored 80% or higher compared to 2 on Attempt 2. Attempt 3 - 2 students answered 18 questions correct for a score of 72%.

Attempt 3 -1 student did not pass the quiz with a score of 14 questions correct. 94 Percent of the students achieved the goal of achieving a score of 70% or better on the third attempt.

CIS 120-006 (6 Students)

Attempt 3 - All 6 students who attempted the Quiz scored 90% or better. This was a smaller class - So it made it easier to review the material. All students in this class had good rapport and helped each other with problems areas.
Attempt 3 - 4 students scored a perfect 25 questions correct. Attempt 3 - 2 students scored between 23 and 24 questions correct.

100% of the students in this course achieved the goal of answering 70% or better on the quiz.

EVIDENCE ATTACHMENTS:
- TK20 assesment CIS120-002.pdf
- TK20 assesment CIS120-003.pdf
- CIS 120-006 IPOS Quiz All Three Attempts.pdf
- CIS 120-004 Comparing IPOS Quiz All Three Attempts - New.pdf
- CIS 120-005 Comparing All Three IPOS Quiz Attempts.pdf
- CIS 120-006 Assessment Improvement Between First and Second Attempt.pdf
- CIS 120-005 Attempt Comparison Between 1st and 2nd Attempt on The IPOS Quiz.pdf
- CIS 120-004 IPOS Cycle Attempt Comparison First Day Attempt and Attempt 2.pdf

FINDINGS

The Input, Output, Processing and Storage (IPOS) Quiz was used to evaluate the students understanding and knowledge of various computer devices and the function of the devices and where the device would be placed in the Input, Output, Processing and Storage Cycle.

There are many devices the students will not be familiar with because of their lack of exposure of how various equipment is used in the workforce.

When the Quiz was administered day 1, the students were not expected to score high. They were being tested on material that they did not review, devices they had not seen before, and with terms they were not familiar with prior to the Quiz.

The students were expected to improve on their first day scores over the course of the semester. Two approaches were taken before the second and third attempt of the (IPOS) Quiz. The Quiz score was not factored into the grade - it was used to evaluate the students current knowledge of the material.

Between the first and second attempt we would not spend any class time directly reviewing the material that was covered on the IPOS Quiz. The idea was to observe how the students discovered and learned the material over course lectures and learning the material as they read it in the course text book. The students would not be informed when the second quiz attempt would be administered. The quiz score would not be factored into their grade. The score was used to see how the students improved between the first and second attempt.

Each course was evaluated separately to analyze student improvement on the IPOS Quiz.

CIS 120-004 - Attempt 1 (12 Students)

On the first attempt the students in CIS 120-004 performed as expected. None of the students passed the quiz. The idea of the first quiz attempt was to establish a starting score and use a baseline measurement to gauge the student improvement.

CIS 120-004 scores were as follows. Attempt 1
- 6 students scored 28% or below
- 6 students scored between 32% and 48%

The overall average was 35.08%

The students would take the quiz a second time around mid-term but were not warned ahead of time when the quiz would be given nor were the quiz questions reviewed directly in class.
Understanding the students did not review the questions directly, a baseline of 5 points improvement was used to measure the students improvement in their quiz score.

In CIS 102-004, the highest score was 12 points on the first attempt. Using the baseline of 5 points to measure the students improvement - the highest score would be 17 points. Even though the average would still be below 70%, it is still significant improvement over the first attempt.

**CIS 120-004 Attempt 2 (11 students)**
3 students failed to score higher than 50% with answering 12 or less questions correct. Based on the fact, the entire class scored less than 50% on the first attempt. The class surpassed the benchmark of improving their score by 5 points.
1 student scored in the 52% to 60% range - only one student did not pass the quiz. Therefore, the students surpassed the baseline of improving their score by 5 points.
1 student scored between 64% to 68%.
6 students scored above 80%.
Overall student improvement is well above average.

Before the third attempt, direct class time was spent reviewing both the Input, Output, Processing and Storage functions and the various equipment used at each stage. The devices were used in several methods.
Games;
Pictures; and
Videos.

Given the amount of class time spent reviewing and the methods implemented a benchmark of 100% of the students scoring 70% or higher on the third attempt will be implemented.

**CIS 120-004 - Attempt 3 (10 Students)**
5 Students - 25 questions correct;
3 students scored between 92% and 96% questions correct; and
2 students scored between 80% and 89% questions correct.

All of the students in CIS 120-004 achieved the benchmark score of 70% by all students scoring between 80% and 100%.

**CIS 120-005 Attempt 1 (24 Students)**
This is a tough quiz when taken by students who have not studied or been exposed to the material. The CIS 120-005 class struggled with the questions, but the idea to gauge student improvement over the course of the semester is a great idea.

14 out of 24 students answered 7 or less questions correctly.
8 students answered between 8 and 12 questions correctly.
Therefore 22 students out of 24 scored 48% or less questions correctly.
2 students scored between 60% and 69% questions answered correctly.

The goal now is to measure how the students scores will improve over the course of the semester.

**CIS 120-005 Attempt #2 (19 Students)**
The benchmark used to gauge student improvement was 5 points.
Attempt #1 the average score for the entire class was 7.4 questions answered correctly
Attempt #2 the average score for the entire class was 11.3 questions answered correctly.
The overall class average did not improve by the benchmark of 5 points however this
statistic can be skewed by students who scored really low which lowered the overall class average.

However, analyzing individual scores there was noticeable improvement between the first and second attempt of the (IPOS) Quiz.

**CIS 120-005 IPOS Quiz Score Breakdown**

On Attempt #2, only 5 students answered 7 or less questions correctly compared to 14 on Attempt #1 - Therefore, 9 students improved their score. 8 students answered between 8 and 12 questions correctly, 6 students answered 13 or more questions correctly on Attempt #2, compared to only 2 Students answering 13 or more questions correctly on Attempt #1. This is an improvement of 4 more students.

Breakdown of those 6 students is as follows:
- 2 students scored between 52% and 60%; and
- 2 students scored between 64% and 68%.

When the students in CIS 120-005 took the IPOS Quiz the first time, 0 students scored higher than 70%. On Attempt #2, 2 students scored higher than 70% questions answered correctly.
- 1 student scored between 72% and 76% questions answered correctly.
- 1 student scored between 80% and 88% questions answered correctly.

The overall class average improved by 15.20% despite not reaching the benchmark of the class average increasing by 5 points. The students should be pleased with their score improvement.

**CIS 120-005 Attempt 3 (17 Students)**

The benchmark for Attempt #3 was for 100% of the students to score 70% or higher. The score breakdown was as follows:
- 2 students scored a perfect 25 out of 25 questions correct for 100%.
- 6 students scored between 23 and 24 questions correct.

In total for Attempt #3 - 8 students scored 90% or higher on the (IPOS) Quiz compared to 2 on Attempt #2.
- 5 students scored between 20 and 22 questions correct.

IPOS Quiz Attempt #3 in total 13 out of 17 students scored 80% or higher - compared to a class average of 11.3 correct out of 25 questions on IPOS Quiz Attempt #2.

- 2 students scored 18 questions correct for a score of 72%.

94% of the students that took the third attempt of the IPOS Quiz Attempt #3 achieved the benchmark of a score of 70% or higher.
- 1 student failed to score of 70% by answering 14 questions correct.

**CIS 120-006 Attempt #3 (6 Students)**

The benchmark for Attempt #3 was for 100% of the students to score 90% or higher which surpasses the benchmark of a score of 70% or higher. The score breakdown was as follows:
- 4 students achieved a score of 100%.
- 1 student achieved a score of 96%.
- 1 student achieved a score of 94%.

Result of Test / Attempt 1
**CIS 120-002 (9 students)**
- 4 students secured 100%
- 2 students secured 90-99%
3 students secured 80-89%.
CIS 120-003 (13 students)
2 students secured 100%
6 students secured 90-99%
4 students secured 80-89%
1 student secured 70-79%

Result of Test / Attempt 2
CIS 120-002 (8 students)
7 students secured 100%
1 student secured 90-99%
CIS 120-003 (9 students)
9 students secured 100%
All Scores improved over Attempt 2.

In summary, students in CIS120-004 achieved and surpassed the benchmark scores set for the (IPOS) Quiz. When the students took the IPOS quiz the first day of class, all students scored below 50%. On the last day of class, students were expected to score in the benchmark range of 70% or higher. However, the students surpassed the benchmark by having 8 out of 10 students score in the 92% or higher range. The smaller class size helped the students to surpass the expected benchmark score of 70%.

Analyzing each question separately, all students surpassed the 70% benchmark. All students scored 80% or higher on all questions answered. (See attached chart comparing all three IPOS quiz attempts for CIS120-004).

In summary, CIS 120-005 even though the class average was lower than the other CIS classes, they still performed well on the Input, (IPOS) Quiz. This was a larger class, so the students did not get as much individual attention during the review of the course material. The students performed really well on Attempt #3 IPOS Quiz. The students were attentive while taking and reviewing their notes before the third attempt.

13 out of 17 students scored 80% or higher on Attempt #3 - which is outstanding progress from Attempt #2 where the class average was 11.3 correct.

94% of students surpassed the benchmark of scoring 70% or higher. The only student that did not score above 70% was a good student and did well in the course. I believe the student either is not good at taking tests or over thought the quiz questions.

Analyzing each question separately, most students surpassed the 70% benchmark. Most students scored 70% or higher on all questions answered. (See attached chart comparing all three IPOS Quiz attempts for CIS120-005). Analyzing each question separately, the class average was 87.04% questions answered correctly. The students successfully surpassed the benchmark goal of 70% questions answered correctly.

CIS 120-006 was a small course, so the students were able to achieve a great deal of individual attention during the review process. This helped them when they took the (IPOS) Quiz on the third attempt. 100% of the students answered 88% of the questions correctly. This score was well above the benchmark of 70% of questions answered correctly. (See attached chart comparing all three IPOS quiz attempts for CIS120-006.)

CIS 120-002 & CIS 120-003
A review session after 1st Attempt helped students a lot and they are able to identify various devices and IPOS cycles and they all performed well during 2nd attempt.
WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

The purpose of the (IPOS) Quiz Assessment serves two purposes:
1. Gauge the students understanding of various computer hardware (peripheral) devices, and where the peripheral device fits into the IPOS Cycle.
2. The most important part of the assessment is to evaluate the students progress over the course of the semester by correctly identifying the computer peripheral devices and where these devices fit into the IPOS Cycle.

There can be over a 100 types of computer devices and the students have had exposure to only a fraction of the computer hardwares available. The Input, Output, Processing and Storage cycle is hard to understand when a student is first introduced to the topic. So it is not to be expected to perform well when they first take the exam. This is why gauging student progress of the course of the semester is the most important aspect of the assessment.

The first part of the assessment was to evaluate how quiz scores would improvement as quiz topics were introduced from general class lectures and text book reading. The students scores were expected to improve by an average of 5 points since the topics were not directly covered.

After the second attempt, quiz topics were directly covered during class time in the form of games, flash cards, videos, and class notes. With this method of direct review and the entertaining methods applied, all students were expected to achieve a passing grade of a 70% or better on attempt 3. All 3 CIS courses; CIS 120-004, CIS 120-005, and CIS 120-006 achieved this benchmark.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Introducing the games to review the Input, Output, Processing and Storage Cycle was effective in the sense that almost all students in CIS 120-004, CIS 120-005, and CIS 120-006 achieved the benchmark of 70% or higher on the third attempt of the IPOS Quiz. Upon closer examination of CIS 120-005 which was the largest class (16 students) of the three, there was a group of students that seemed to struggle with simple concepts that were discussed in class lectures. These were also concepts that were covered during the games the class played to cover the material.

It is a matter of concern why these students still struggled with these simple concepts. A few reasons come to mind because of the large class:
1. Some talkative students needed to be refocused on class activities.
2. Students lacked confidence and let other students take the lead in answering questions asked during the games.
3. Students were asked and encouraged to take notes so they could review the material that was covered during the game.
4. Some students that lacked focus did not take the suggested notes.

ADDITIONAL COMMENTS:

To ensure the students are paying attention to the games in the future, the students will be required to submit their notes. In all three attempts, the students were quizzed over the same peripheral devices. The question was in a matching format each time,
so the order of the questions could not be altered a great deal.

In the future, when the student assessment is gauged by using the Input, Processing, Output, and Storage (IPOS) Quiz, it will be evaluated differently. When the IPOS Quiz is given for attempt #2, it will contain additional devices. The third attempt will have separate questions using a drop down list for each question. In addition, new hardware devices will be added to the quiz.

1. Between the second and third attempt, a great deal of class time was dedicated to reviewing the IPOS Cycle and the computer devices used at each stage. The reviews took more time than was originally planned. Other methods of evaluation and study need to be explored so the students can study the computer devices and where they are used in the IPOS Cycle.

One method is to alter the Blackboard Banner so it will cycle through pictures of computer devices, the name of the device and where it fits into the IPOS Cycle. This Banner image can change over the course of the semester so the students will be exposed to different devices and their uses throughout the course of the semester.

Games during class time will still be used to review the different peripheral devices, but not as much class time will be used as was used this semester.

Many students are not aware of various Hardware components and so they get confused with similar looking devices and different functions of devices. If students can get chance to see various devices and their functions then they can easily remember all those devices. Also a good PowerPoint presentation based on functioning of various Hardware components with their pictures help them a lot.

2. Create activities, such as an online drag and drop activity where students can study the devices outside of class time.

The students can a drag a picture of the device on the right to the name of the device on the right.

Another online activity would be for the students to drag the name of the device on the left side of screen to the corresponding computer function on the right side of the screen.

3. Another method for review would be for the students to review an online game posted by the instructor to review and study the devices and how they are used in the IPOS Cycle. This online game will contain links to online videos as well as more involved explanations of the peripheral devices. Due to the length of some of the videos and the time it takes to read over the notes in the game, it would take up too much class time. So this activity would be more effective if done outside of class. The students would be required to submit notes as proof that they not only did they play the game, but that they also reviewed the videos and notes.

RESTRUCTURE OUTCOME STATEMENT
Planned Changes

REVISE MEASUREMENT APPROACH
Planned Changes

COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION
Planned Changes

DESCRIBE CHANGES
Next time the students have an assessment on the IPOS Cycle, some changes will be made to the assessment to make it more effective.
1. Instead of using the same devices on all three quiz attempts, new devices will be added to the second and third quiz attempts.

2. Instead of being quizzed on the name of the device and where the device is used in the IPOS Cycle, the students will have to be able to recognize these devices by sight. Which will help them in understanding where the device is used in the IPOS Cycle.

3. The format of the third attempt on the IPOS Quiz will be changed from matching to individual questions using a drop down list.

Since the number of questions and format of the questions will change on each attempt, the method of analyzing the data will have to be altered. The topics will have to be based on the percentage of questions the student answered correctly on a given topic or device.

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**REVAMP SERVICES**

**Planned Changes**

**MAKE TECHNOLOGY RELATED IMPROVEMENTS**

**Planned Changes**

**IMPLEMENT ADDITIONAL TRAINING**

**Planned Changes**

**ADD NEW SERVICE(S) OR PROGRAM(S)**

**Planned Changes**

**DESCRIBE CHANGES**

This was the first semester using the IPOS Cycle as a method of assessment, so much of it was trial and error. During the course of the semester, it was discovered that other methods used for review could be improved:

1. This semester pictures and videos were introduced after mid-semester as a method for reviewing devices. Next time IPOS is used as a method of assessment - both pictures and videos will be introduced towards the beginning of the semester as a method of reviewing computer peripheral devices.

2. After mid-semester, lots of class time was devoted to reviewing the devices in the forms of games and other group activities. These methods will still be used, but the students need to devote time outside of class individually by watching videos and participating in online activities. The students will also submit notes as proof of doing these activities.

3. This semester the IPOS Quizzes were given to the students as a separate quiz which may have made taking the quiz much easier since they were not studying other material. As a result far surpassed the benchmark result of 70% questions answered correctly. Next time the IPOS assessment will be administered as part of a larger exam to further challenge the students.

**PERSON/ GROUP RESPONSIBLE FOR ACTION**

Paul Robert Bruce, Salil Dhawan

**TARGET DATE FOR IMPLEMENTATION OF THE ACTION**

12/31/2018

**PRIORITY**

High
ECN 240 Assessment Plan Data

Course Outcome
Students will be able to demonstrate an understanding of inflation.

AY 2017-2018

MEASURE 1:
In comprehensive final exams, students demonstrate an understanding of INFLATION.
-80% of Business students taking this assessment will achieve a minimum of 70% on related multiple choice questions.

MEASURE 1 TYPE:
Direct

MEASURE 1 RESULTS:
In comprehensive finals, 70% of our Business students achieved a minimum of 70% on inflation-related questions.

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MEASURE 2:
In comprehensive final exams, students demonstrate an understanding of INFLATION.
-70% of non-Business students taking this assessment will achieve a minimum of 70% on related multiple choice questions.

MEASURE 2 TYPE:
Direct

MEASURE 2 RESULTS:
In comprehensive exams, 54% of non-Business students achieved a 70% or more on inflation-related questions.

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<tr>
<td>ECN-240-001 N/A</td>
<td>1 1 1 1 2</td>
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<tr>
<td>ECN-240-001 N/A</td>
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<td>ECN-240-001 N/A</td>
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<td>ECN-240-001 N/A</td>
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<tr>
<td>ECN-240-001 N/A</td>
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<td></td>
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</tr>
</tbody>
</table>

Results: 54% achieved a mini 70%
FINDINGS

In comprehensive exams, 70% of business students earned a 70% or greater on inflation-related questions, which falls short of our goal of 80% earning a minimum of 70%. With our non-business students, only 54% earned a 70% or greater, which also falls short of our goal of at least 70% earning a minimum of 70%.

TARGET LEVEL ACHIEVEMENT

Partially Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Our business students approached the department-wide goal for this measure.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Our non-business students fell well-short of our department-wide goal for this measure.

1. During Fall 2018, the Economics department will be transitioning to a new textbook along with an online learning platform. This will enable students to personalize their studying with interactive online activities to enhance their learning.

2. In Blackboard and through MindTap, we will make available to the entire department key instructional videos for faculty to incorporate into their courses. These videos can be used by faculty and students to review key supply and demand concepts.

REVISE MEASUREMENT APPROACH

Planned Changes

CHANGE METHODS OF DATA COLLECTION

Planned Changes

DESCRIBE CHANGES

With regard to our assessment process, our team will review our goals for this measure. In addition, we will refine our data collection instructions for faculty and data input.

IMPLEMENT ADDITIONAL TRAINING

Planned Changes

DESCRIBE CHANGES

Working with the Department team, we will explore how activities in MindTap can help assessment during a training session in December 2018.

PERSON/ GROUP RESPONSIBLE FOR ACTION

Michelle Sims, Patrick Cunningham, Anthony Gier

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

12/17/2018

PRIORITY

Medium

Course Outcome

Students will be able to demonstrate an understanding of unemployment.

AY 2017-2018

MEASURE 1:

In the comprehensive finals exam, students demonstrated an understanding of the sources of UNEMPLOYMENT.

-80% of Business students taking this assessment will achieve a minimum of 70% on related questions.
MEASURE 1 RESULTS:

In the comprehensive final exam, 70% of Business students achieved a minimum of 70% on unemployment questions.

<table>
<thead>
<tr>
<th>Section</th>
<th>Degree Bus or NonBus</th>
<th>M2 MC Part 1 #5</th>
<th>M2 Q11</th>
<th>Q12</th>
<th>Q13</th>
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<td>Bus</td>
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</tr>
</tbody>
</table>

MEASURE 2 RESULTS:

In the comprehensive exam, 68% of non-business students achieved a minimum of 70% on unemployment questions.

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<thead>
<tr>
<th>Section</th>
<th>Degree Bus or NonBus</th>
<th>M2 MC Part 1 #5</th>
<th>M2 Q11</th>
<th>Q12</th>
<th>Q13</th>
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<td>0</td>
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</tbody>
</table>

FINDINGS

With regard to understanding the concept of Unemployment, 70% of our Business students and 68% of our non-Business students achieved a 70% or greater on related questions. Although we missed our goal in each group, our students performed close to the goal.
TARGET LEVEL ACHIEVEMENT

Partially Met

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Both Business and non-Business students performed near the department goal for this outcome. This indicates that as a department, our students learned the related concepts and demonstrated their understanding on the final exam.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Despite coming close to reaching our departmental goals, our students as a group failed to achieve goals as outlined in our measures. Only 70% of Business students achieved our departmental goal (rather than 80%) and only 67% of non-Business students were successful (rather than 70%).

1. During Fall 2018, the Economics department will be transitioning to a new textbook along with an online learning platform. This will enable students to personalize their studying with interactive online activities to enhance their learning.

2. In Blackboard and through MindTap, we will make available to the entire department key instructional videos for faculty to incorporate into their courses. These videos can be used by faculty and students to review key supply and demand concepts.

REVISE MEASUREMENT APPROACH

Planned Changes

CHANGE METHODS OF DATA COLLECTION

Planned Changes

DESCRIBE CHANGES

With regard to our assessment process, our team will review our goals for this measure. In addition, we will refine our data collection instructions for faculty and data input.

PERSON/ GROUP RESPONSIBLE FOR ACTION

Michelle Sims, Patrick Cunningham, Anthony Gier

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

12/10/2018

PRIORITY

High

Course Outcome

Students will be able to demonstrate understanding and analysis of fiscal policy and the source of the authority for taking action.

AY 2017-2018

MEASURE 1:

In comprehensive final exams, students will demonstrate an understanding of FISCAL POLICY. 80% of Business students taking this assessment will achieve a minimum of 70% on related multiple choice questions.

MEASURE 1 TYPE:

Direct

MEASURE 1 RESULTS:

<table>
<thead>
<tr>
<th>Section</th>
<th>Degree Bus or NonBus</th>
<th>M4 Q26</th>
<th>Q27</th>
<th>Q28</th>
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</tbody>
</table>

MEASURE 2:

In comprehensive final exams, students will demonstrate an understanding of FISCAL POLICY. 70% of non-Business students taking this assessment will achieve a minimum of 70% on related multiple choice questions.

MEASURE 2 TYPE:

Direct

MEASURE 2 RESULTS:

<table>
<thead>
<tr>
<th>Section</th>
<th>Degree Bus or NonBus</th>
<th>M4 Q26</th>
<th>Q27</th>
<th>Q28</th>
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<td></td>
<td>100%</td>
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</table>

25% of non-Business students earned a minimum
FINDINGS

The goal for this measure is at least 80% of Business students earning at least 70% on fiscal policy-related questions and 70% of non-Business students earning at least 70%. The findings indicate that only 50% of our Business students met this goal and only 25% of non-Business students met this goal.

TARGET LEVEL ACHIEVEMENT

Partially Met

"IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Both Business and non-Business students performed poorly on fiscal policy-related questions. Our business students performed better; however, both groups of students failed to demonstrate an understanding of fiscal policy.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Both Business and non-Business students performed poorly on fiscal policy-related questions. Our business students performed better; however, both groups of students failed to demonstrate an understanding of fiscal policy.

1. During Fall 2018, the Economics department will be transitioning to a new textbook along with an online learning platform. This will enable students to personalize their studying with interactive online activities to enhance their learning.

2. In Blackboard and through MindTap, we will make available to the entire department key instructional videos for faculty to incorporate into their courses. These videos can be used by faculty and students to review key supply and demand concepts.

REVISE MEASUREMENT APPROACH

Planned Changes

COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION

Planned Changes

DESCRIBE CHANGES

With regard to our assessment process, our team will review our goals for this measure. In addition, we will refine our data collection instructions for faculty and data input.

PERSON/GROUP RESPONSIBLE FOR ACTION

Michelle Sims, Patrick Cunningham, Anthony Gier

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

12/17/2018
**Course Outcome**

Students will be able to demonstrate understanding and analysis of monetary policy and the Federal Reserve Banking system.

**AY 2017-2018**

**MEASURE 1:**

In comprehensive final exams, students demonstrate an understanding of MONETARY POLICY. -80% of Business students taking this assessment will achieve a minimum of 70% on related multiple choice questions.

**MEASURE 1 TYPE:** Direct

**MEASURE 1 RESULTS:**

<table>
<thead>
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<th>Section</th>
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<th>Q39</th>
<th>Q40</th>
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</table>

10% of Business students earned a score of 70%.

**MEASURE 2:**

In comprehensive final exams, students demonstrate an understanding of MONETARY POLICY. -70% of non-Business students taking this assessment will achieve a minimum of 70% on related multiple choice questions.

**MEASURE 2 TYPE:** Direct

**MEASURE 2 RESULTS:**

<table>
<thead>
<tr>
<th>Section</th>
<th>Degree</th>
<th>MS</th>
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</tr>
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<td>ECN-240-002</td>
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<td></td>
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</table>

21% of Non-Business students earned a score of 70%.
FINDINGS
Given our department goal for monetary policy, our Business students and on-Business students failed miserably. For Business students, we expected at least 80% to earn a minimum of 70% on monetary policy related questions. However, only 10% of our students met this goal. For non-Business students, we expected a minimum of 70% to earn at least 70% on monetary policy-related questions. However, only 21% met this goal.

TARGET LEVEL ACHIEVEMENT
Partially Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.
Further Action Planned

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Some Business and non-Business students met the department's stated goal for monetary policy:
Business students: 10%
Non-Business students: 21%

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
For Business students, our departmental goal is for 80% to earn a minimum of 70% on monetary policy questions. Only 10% achieved this. For non-Business students, our goal is for 70% to earn at least 70%; however, only 21% achieved this goal.

1. During Fall 2018, the Economics department will be transitioning to a new textbook along with an online learning platform. This will enable students to personalize their studying with interactive online activities to enhance their learning.

2. In Blackboard and through MindTap, we will make available to the entire department key instructional videos for faculty to incorporate into their courses. These videos can be used by faculty and students to review key supply and demand concepts.

REVISE MEASUREMENT APPROACH
Planned Changes

CHANGE METHODS OF DATA COLLECTION
Planned Changes

DESCRIBE CHANGES
With regard to our assessment process, our team will review our goals for this measure. In addition, we will refine our data collection instructions for faculty and data input.

IMPLEMENT ADDITIONAL TRAINING
Planned Changes

PERSON/ GROUP RESPONSIBLE FOR ACTION
Michelle Sims, Patrick Cunningham, Anthony Gier

TARGET DATE FOR IMPLEMENTATION OF THE ACTION
12/17/2018
Course Outcome

Students will explain supply and demand as well as their aggregate equivalents.

AY 2017-2018

MEASURE 1:

In comprehensive final exams, students will successfully demonstrate an understanding of SUPPLY AND DEMAND. 
-80% of Business students taking this assessment will achieve a minimum of 70% on related questions.

MEASURE 1 TYPE:

Direct

MEASURE 1 RESULTS:

In comprehensive exams, 70% of Business students achieved a minimum of 70% or greater on Supply and Demand questions. So we missed the goal of 80% of Business students achieving this measure.

<table>
<thead>
<tr>
<th>Section</th>
<th>Degree</th>
<th>M1</th>
<th>Q5</th>
<th>Q6</th>
<th>Q7</th>
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<td>0</td>
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MEASURE 2:

In comprehensive final exams, students will successfully demonstrate an understanding of SUPPLY AND DEMAND. 
-70% of non-Business students taking this assessment will achieve a minimum of 70% on related questions.

MEASURE 2 TYPE:

Direct

MEASURE 2 RESULTS:

In comprehensive exams, 35% of non-business students achieved a minimum of 70% on supply and demand questions. This outcome falls well below our goal of 70% of non-business students.

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<th>Q6</th>
<th>Q7</th>
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<th>Q9</th>
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</table>

**FINDINGS**

In comprehensive exams, 70% of Business students achieved a minimum of 70% or greater on Supply and Demand questions. We missed the goal of 80% of Business students achieving this measure. In addition, only 35% of non-business students achieved a minimum of 70% or greater on these questions. Our goals for non-business students is 70% of these students will achieve 70% or greater on Supply and Demand questions.

**TARGET LEVEL ACHIEVEMENT**

Partially Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.*

Further Action Planned

**WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

A key strength displayed through the assessments of these measures is that as a department, our business students as a group performed much better than our non-business students in understanding supply and demand.

**WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

From a departmental perspective, a key weakness that was displayed through the assessment of these measures is that only 35% of our non-business students achieved a 70% or greater in this supply and demand measure.

1. During Fall 2018, the Economics department will be transitioning to a new textbook along with an online learning platform. This will enable students to personalize their studying with interactive online activities to enhance their learning.

2. In Blackboard and through MindTap, we will make available to the entire department key instructional videos for faculty to incorporate into their courses. These videos can be used by faculty and students to review key supply and demand concepts.

**REVISE MEASUREMENT APPROACH**

Planned Changes

**CHANGE METHODS OF DATA COLLECTION**

Planned Changes

**DESCRIBE CHANGES**

With regard to our assessment process, our team will review our goals for this measure. In addition, we will refine our data collection instructions for faculty and data input.

**IMPLEMENT ADDITIONAL TRAINING**

Planned Changes

**PERSON/GROUP RESPONSIBLE FOR ACTION**

Michelle Sims, Patrick Cunningham, Anthony Gier

**TARGET DATE FOR IMPLEMENTATION OF THE ACTION**

12/10/2018

**PRIORITY**

High
# Course Outcome

Students will able to demonstrate a basic understanding of the different market structures.

## AY 2017-2018

### MEASURE 1:

In comprehensive final exams, students will respond to a comprehensive essay problem regarding MARKET STRUCTURES.

80% of Business students taking this assessment will achieve a minimum of 70%.

**MEASURE 1 TYPE:** Direct

**MEASURE 1 RESULTS:**

<table>
<thead>
<tr>
<th>Degree sect</th>
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<th>Q29</th>
<th>Q30</th>
<th>Q31</th>
<th>Q32</th>
<th>Q33</th>
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</table>

46% of Business achieved at least 70% on market questions.

### MEASURE 2:

In comprehensive final exams, students will respond to a comprehensive essay problem regarding MARKET STRUCTURES.

70% of non-Business students taking this assessment will achieve a minimum of 70%.

**MEASURE 2 TYPE:** Direct

**MEASURE 2 RESULTS:**

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55% of non-Business met the goal of earning at least 70% on questions.
FINDINGS

46% of our Business students met our departmental goal, while 55% of our non-Business students were successful.

TARGET LEVEL ACHIEVEMENT

Partially Met

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

46% of our Business students met our departmental goal, while 55% of our non-Business students were successful.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Our non-Business students out-performed our Business students in this measure.

1. During Fall 2018, the Economics department will be transitioning to a new textbook along with an online learning platform. This will enable students to personalize their studying with interactive online activities to enhance their learning.

2. In Blackboard and through MindTap, we will make available to the entire department key instructional videos for faculty to incorporate into their courses. These videos can be used by faculty and students to review key market structure concepts.

REVISE MEASUREMENT APPROACH

Planned Changes

COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION

Planned Changes

DESCRIBE CHANGES

With regard to our assessment process, our team will review our goals for this measure. In addition, we will refine our data collection instructions for faculty and data input.

PERSON/GROUP RESPONSIBLE FOR ACTION

Michelle Sims, Patrick Cunningham, Anthony Gier

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

12/17/2018

PRIORITY

High

Course Outcome

Students will analyze and explain supply and demand.

AY 2017-2018

MEASURE 1:

In comprehensive final exams, students will respond to a comprehensive essay problem regarding SUPPLY AND DEMAND. 80% of Business students taking this assessment will achieve a minimum of 70%.

MEASURE 1 TYPE:

Direct

MEASURE 1 RESULTS:

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MEASURE 2:
In comprehensive final exams, students will respond to a comprehensive essay problem regarding SUPPLY AND DEMAND. 70% of Non-Business students taking this assessment will achieve a minimum of 70%.

MEASURE 2 TYPE: Direct

MEASURE 2 RESULTS: 58% of Non-Business students achieved 70% or higher on Supply and Demand-related questions.

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FINDINGS
58% of our non-Business students earned at least 70% on Supply and Demand-related questions, while 42% of our Business students earned at least 70% on these questions.

TARGET LEVEL ACHIEVEMENT
Partially Met
*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Our non-Business students performed better on this measure than our Business students.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Neither group met the departmental goal.

1. During Fall 2018, the Economics department will be transitioning to a new textbook along with an online learning platform. This will enable students to personalize their studying with interactive online activities to enhance their learning.

2. In Blackboard and through MindTap, we will make available to the entire department key instructional videos for faculty to incorporate into their courses. These videos can be used by faculty and students to review key supply and demand concepts.

COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION
Planned Changes

CHANGE METHODS OF DATA COLLECTION
Planned Changes

DESCRIBE CHANGES
With regard to our assessment process, our team will review our goals for this measure. In addition, we will refine our data collection instructions for faculty and data input.

IMPLEMENT ADDITIONAL TRAINING
Planned Changes

DESCRIBE CHANGES
As a department, we will train and explore our new learning platform to better understand how it can help with the assessment of student learning.

PERSON/GROUP RESPONSIBLE FOR ACTION
Michelle Sims, Patrick Cunningham, Anthony Gier

TARGET DATE FOR IMPLEMENTATION OF THE ACTION
12/17/2018

PRIORITY
High

Course Outcome
Students will be able to calculate and analyze price elasticity of demand and supply, as well as income elasticity and cross price elasticity.

AY 2017-2018

MEASURE 1:
In comprehensive final exams, students will respond to a comprehensive essay problem regarding ELASTICITY. 80% of Business students taking this assessment will achieve a minimum of 70%.

MEASURE 1 TYPE:
Direct

MEASURE 1 RESULTS:

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During Fall 2018, the Economics department will be transitioning to a new textbook along with MEASURE 2.

In comprehensive final exams, students will respond to a comprehensive essay problem regarding ELASTICITY. 70% of non-Business students taking this assessment will achieve a minimum of 70%.

### MEASURE 2 TYPE:

### MEASURE 2 RESULTS:

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### FINDINGS

Of our Business students, 27% successfully earned at least 70% on elasticity-related questions, while 35% on our non-Business students earned at least 70% on these questions.

### TARGET LEVEL ACHIEVEMENT

Partially Met

### WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Our non-Business students out-performed our Business students in their understanding of elasticity-related concepts.

### WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Neither our Business or non-Business students met our departmental goal for this measure.

### 1.

During Fall 2018, the Economics department will be transitioning to a new textbook along with
an online learning platform. This will enable students to personalize their studying with interactive online activities to enhance their learning.

2. In Blackboard and through MindTap, we will make available to the entire department key instructional videos for faculty to incorporate into their courses. These videos can be used by faculty and students to review key elasticity concepts.

REVISE MEASUREMENT APPROACH

Planned Changes

CHANGE METHODS OF DATA COLLECTION

Planned Changes

DESCRIBE CHANGES

With regard to our assessment process, our team will review our goals for this measure. In addition, we will refine our data collection instructions for faculty and data input.

PERSON/GROUP RESPONSIBLE FOR ACTION

Michelle Sims, Patrick Cunningham, Anthony Gier

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

12/17/2018

PRIORITY

High

Course Outcome

Students will be able to calculate production costs and economic profit.

AY 2017-2018

MEASURE 1:

In comprehensive final exams, students will respond to a comprehensive essay problem regarding COST OF PRODUCTION. 80% of Business students taking this assessment will achieve a minimum of 70%.

MEASURE 1 RESULTS:

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MEASURE 2:

In comprehensive final exams, students will respond to a comprehensive essay problem regarding COST OF PRODUCTION. 70% of non-Business students taking this assessment will achieve a minimum of 70%.

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12% of non-Business students earned at least 70% on production-related questions.
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**FINDINGS**

4% of Business students earned at least 70% on production cost-related questions, while 12% of non-Business students earned at least 70%.

**TARGET LEVEL ACHIEVEMENT**

Partially Met

**WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

Our non-business students out-performed our business students in this measure.

**WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

Neither group of students met the departmental goal.

1. During Fall 2018, the Economics department will be transitioning to a new textbook along with an online learning platform. This will enable students to personalize their studying with interactive online activities to enhance their learning.

2. In Blackboard and through MindTap, we will make available to the entire department key instructional videos for faculty to incorporate into their courses. These videos can be used by faculty and students to review key cost of production concepts.

**REVISE MEASUREMENT APPROACH**

Planned Changes

**COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION**

Planned Changes

**DESCRIBE CHANGES**

With regard to our assessment process, our team will review our goals for this measure. In addition, we will refine our data collection instructions for faculty and data input.

**PERSON/ GROUP RESPONSIBLE FOR ACTION**

Michelle Sims, Patrick Cunningham, Anthony Gieer

**TARGET DATE FOR IMPLEMENTATION OF THE ACTION**

12/17/2018

**PRIORITY**

High

**Course Outcome**

Students will be able to discuss the concept of resource markets, specifically the labor market and its relationship to labor unions.

**AY 2017-2018**
MEASURE 1:
In comprehensive final exams, students will respond to a comprehensive essay problem regarding RESOURCE MARKETS. 80% of Business students taking this assessment will achieve a minimum of 70%.

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MEASURE 2:
In comprehensive final exams, students will respond to a comprehensive essay problem regarding RESOURCE MARKETS. 70% of non-Business students taking this assessment will achieve a minimum of 70%.

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FINDINGS

Across the board, our students came very close to meeting the goal of being able to discuss the concept of resource markets, specifically the labor market and its relationship to labor unions. 62% of our Business students and 76% of our non-Business students earned at least 70% on these questions.

TARGET LEVEL ACHIEVEMENT

Partially Met

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

A key strength is that both groups of students came very close to meeting the departmental goals. The non-business students out-performed the business students.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

The business students performed less favorably than the non-business students, who typically are Engineering students.

1. During Fall 2018, the Economics department will be transitioning to a new textbook along with an online learning platform. This will enable students to personalize their studying with interactive online activities to enhance their learning.

2. In Blackboard and through MindTap, we will make available to the entire department key instructional videos for faculty to incorporate into their courses. These videos can be used by faculty and students to review key supply and demand concepts.

REVISE MEASUREMENT APPROACH

Planned Changes

COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION

Planned Changes

DESCRIBE CHANGES

With regard to our assessment process, our team will review our goals for this measure. In addition, we will refine our data collection instructions for faculty and data input.

PERSON/GROUP RESPONSIBLE FOR ACTION

Michelle Sims, Patrick Cunningham, Anthony Gier

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

12/17/2018

PRIORITY

High
ENG 190 Assessment Plan Data

Course Outcome
Analyze, interpret, and respond to literary works.

AY 2017-2018

MEASURE 1:
75% of the students will score 80% or higher on each of the daily responses to demonstrate their understanding of the elements of literature.

MEASURE 1 TYPE:
Direct

MEASURE 1 RESULTS:
88% of students scored an 80% or higher on Daily writing Responses. The results are even higher if you factor out scores of zero for not handing in that day’s work.

MEASURE 2:
75% of students will score an 80% or higher on the comprehensive final exam.

MEASURE 2 TYPE:
Direct

MEASURE 2 RESULTS:
65% of students scored an 80% on the comprehensive final exam.

FINDINGS
While daily writing and class engagement remained high throughout the semester, roughly one third (35%) did not earn a B or better on their comprehensive exam. While some of this could be dismissed as test fatigue, it is concerning that students excelled at particular tasks on the exam and failed at others. That being said, the scores ranged from 56 - 104 on a 100 pt scale.

TARGET LEVEL
Partially Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Again, the discussion and daily writing about literature was very strong. It seemed like their ability to recall even basic definitions in a test environment seemed to lack for a good portion of the students.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Students ability to recall basic terms and identify them in literature seemed lacking in their ability to incorporate these defintions in their long term memory.

1. In addition to the daily writing and discussion of literary texts, I will need to incorporate more checks for understanding by use of pop quizzes and five minute reviews at the end of each lesson.

2. I will spend a few minutes of each class to review terms from the class before. Perhaps I will require a literary notebook where students will demonstrate their ability to take better notes.
Course Outcome

Demonstrate knowledge of different approaches to understanding literature.

AY 2017-2018

MEASURE 1:
75% of students will earn an 80% or better in their daily responses

MEASURE 1 TYPE:
Direct

MEASURE 1 RESULTS:
88% of students achieved an 80% or better on their daily responses

MEASURE 2:
75% of students will achieve an 80% or better on their Music as Poetry Digital Project

MEASURE 2 TYPE:
Direct

MEASURE 2 RESULTS:
93% of students achieved an 80% or better on their Music as Poetry Digital project

MEASURE 3:
75% of students will achieve an 80% or better on their Citizenship / Participation grade

MEASURE 3 TYPE:
Direct

MEASURE 3 RESULTS:
93% of students achieved an 80% or better on their Citizenship / Participation grade

FINDINGS
Students excelled here as well. I was particularly impressed with some of their projects and I think I will incorporate more of these to increase student confidence and efficacy in their own self-learning.

TARGET LEVEL
Met

OVERALL SUMMARY OF FINDINGS
Overall, I’d say most of the learning outcomes have been met at least by a minimal level. In the future, I think including a notebook as a grade element and more individual or group projects will be useful as well. Also, I plan to look at ways to increase opportunities to do some on demand writing and improve retention of information.
RESULTS FOR THE LAST OUTCOME/GOAL BEING ASSESSED IF YOU WOULD LIKE TO PROVIDE AN OVERALL SUMMARY OF YOUR FINDINGS FOR THE COURSE/PROGRAM/DEPARTMENT BEING ASSESSED.)

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Students excel when given the opportunities to demonstrate their understanding of literature in a non-exam setting.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

No real weakness for this particular measure.

1. Overall, I'd say most of the learning outcomes have been met at least by a minimal level. In the future, I think including a notebook as a grade element and more individual or group projects will be useful as well. Also, I plan to look at ways to increase opportunities to do some on demand writing and improve retention of information.

UPLOAD ANY SUPPORTING DOCUMENTS TO FURTHER ELABORATE ON THE RECOMMENDATIONS LISTED ABOVE.

Music as Poetry (2).docx

MAKE TECHNOLOGY RELATED IMPROVEMENTS

Planned Changes

OTHER

Notebooks

DESCRIBE CHANGES

Make note taking part of the grade and see if that assists in the overall outcomes.

PERSON/GROUP RESPONSIBLE FOR ACTION

Dr. eric Lee

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

12/20/2018

PRIORITY

High

Course Outcome

Organize written and spoken ideas logically and coherently.

AY 2017-2018

MEASURE 1:

75% of the students will score 80% or higher on each of the daily responses to demonstrate their understanding of the elements of literature.
MEASURE 1 TYPE: Direct
MEASURE 1 RESULTS: 88% of students scored 80% or higher on daily writing responses.

MEASURE 2: Direct
MEASURE 2 RESULTS: 75% of students will score 80% or higher on their formal Final Papers.

84% of students achieved an 80% or better. 2 Scored 70% or better and 1 failed to turn in their final paper.

EVIDENCE ATTACHMENTS: FINAL PAPER TOPICS 190.docx

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Students excel when they are given the time to write. It seems that both the quality and quantity of writing was organized, clear and coherent, if students had an extended amount of time to prepare and revise.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
The writing on the final exam, was subpar to that of the written essay and daily responses where they had a min of 48 hours to respond.

ADDITIONAL COMMENTS:

Tests and formal papers require two different skill sets, and perhaps I could help students with high pressure writing in the future.

1. I think students generally excel in this outcome. I could probably hold more practice sessions where students must write on command to get them used to high stakes writing from recall.

PERSON/GROUP RESPONSIBLE FOR ACTION

Dr. Eric Lee

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

12/20/2018

PRIORITY

High
ENG 291 Assessment Plan Data

Course Outcome

Demonstrate and implement the writer's individual “voice” through the processes of writing and revising.

AY 2017-2018

MEASURE 1:
75% of all students will earn a grade of 80% or better on their final portfolio of collected and revised work.

MEASURE 1 TYPE:
Direct

MEASURE 1 RESULTS:
85% of all students earned a grade of 80% or better on their final portfolio

MEASURE 2:
75% or better will earn a grade of 80% or better on their final self-reflection and semester assessment.

MEASURE 2 TYPE:
Direct

MEASURE 2 RESULTS:
85% of students earned a grade of 80% or better on their final self-reflection and semester assessment.

FINDINGS
Students tended to be very successful in finding their unique voices and revising that in the creative process (at varying degrees)

TARGET LEVEL
Met

ACHIEVEMENT

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

Further Action Planned

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Students who take this course are passionate about becoming better writers. Why else take this class? Their success however, tends to be directly proportionate to the amount of work they do outside of the required class meetings and homework. Several students would follow me into my office at times to talk very excitedly about how to improve and what other authors they should be reading. It was very encouraging to see those levels of dedication

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

The flip side of this coin, is those students who really turned in the minimal amount of writing or revision. While I have no direct proof, my intuition is that those handful of students thought this might be an "easy A" type class and didn;t really have the dedication or desire for the hard work that fiction writing requires to make something of lasting value. Or they let themselves get distracted by other courses they percieved to be more important (or more difficult) as finals approached. Even with that being said, 17/20 students made a benchmark of 80% or higher.

ADDITIONAL COMMENTS:
I really enjoy my students in this class. A vast majority seemed hungry for more knowledge in the content area, and even those who didn't still reflected that the class was enjoyable even if they didn't live up to their own expectations.
I’d like for a 100% result on this target outcome to be really satisfied with the result. I’m not sure how I can get 100% of students to dedicate the time needed outside of the class to improve daily, but I plan on using my July Vacation to read a few new books on possible approaches.

<table>
<thead>
<tr>
<th>REVISE MEASUREMENT APPROACH</th>
<th>Planned Changes</th>
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<tbody>
<tr>
<td>COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION</td>
<td>Planned Changes</td>
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<td>DESCRIBE CHANGES</td>
<td>I’ll reconsider if the portfolio alone is a significant enough artifact to measure success.</td>
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<td>PERSON/GROUP RESPONSIBLE FOR ACTION</td>
<td>Dr. Eric Lee</td>
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<td>TARGET DATE FOR IMPLEMENTATION OF THE ACTION</td>
<td>08/20/2018</td>
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<td>Medium</td>
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Course Outcome

Demonstrate mastery in the reading and analysis of literary fiction.

AY 2017-2018

| MEASURE 1: | 75% of students will score an 80% or better on their peer evaluations of manuscripts |
| MEASURE 1 TYPE: | Direct |
| MEASURE 1 RESULTS: | 85% of students scored an 80% or better on their peer evaluations of manuscripts |
| MEASURE 2: | Students will actively participate in the discussion of published literary fiction |
| MEASURE 2 TYPE: | Indirect |
| MEASURE 2 RESULTS: | Students were mixed in this measure. I will need to incorporate a more substantive approach to the discussion of literary texts. |

FINDINGS

Students tended to do very well on their peer reviews. Factors to consider include over generosity or stinginess when the reviews were either praising or pointing out flaws.

TARGET LEVEL ACHIEVEMENT

Partially Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.*

Further Action Planned

WHAT STRENGTHS WERE DISPLAYED THROUGH THE

Students remained highly engaged in discussing the various stories we read and responding to each other’s work.
ASSESSMENTS OF YOUR MEASURES?
WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

90% of all required peer reviews were turned in and received good grades. However, upon further examination, it seems some students really went above the requirements to provide substantive feedback and others barely did the minimum and still received the same grade from their peers. This needs to be addressed in future sections.

1. I'll need to provide a better work up of what the difference between satisfactory and excellent peer review is and looks like. I might include a few sample responses as examples for future scoring.

2. I'll need to attach some kind of formative assessment about their discussions of literary texts. While it is not a class in literary analysis, students need to demonstrate those skills so they can better employ those devices in their own creative writing.

REVISE MEASUREMENT APPROACH

Planned Changes

DESCRIBE CHANGES

Provide more examples of satisfactory feedback versus excellent. Incorporate more low stakes writing about the stories we cover.

PERSON/ GROUP RESPONSIBLE FOR ACTION

Dr. Eric Lee

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

08/20/2018

PRIORITY

Medium

Course Outcome

Identify the elements of craft of fiction writing.

AY 2017-2018

MEASURE 1:

75% of students will earn an 80% or better on their chapter responses on the various elements of fiction writing.

MEASURE 1 TYPE:

Direct

MEASURE 1 RESULTS:

90% of students earned an 80% or better on written chapter responses on the elements of fiction. If you factor out attendance or students who withdrew the success rate is nearly 100%

MEASURE 2:

75% of students will earn an 80% or better on their class participation grades for class discussion

MEASURE 2 TYPE:

Direct

MEASURE 2 RESULTS:

85% of students earned n 80% or better for their class participation grades

FINDINGS

Students excelled at this particular learning outcome. Students in this class generally are highly motivated to learn the content and aspire to be creative writing majors at the university.

TARGET LEVEL

Met
ACHIEVEMENT

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

Further Action Unnecessary

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Again, students remain highly motivated and desire to learn the content to improve their own story writing abilities. The way I scaffold the class insists that students have a very firm understanding of the basics, reinforced through in class writing and discussions before they turn in a single word of their own creative writing for formative assessment.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

The only weakness here is when students had attendance issues, or tended to be more shy in class. By the end of the semester everyone was performing at a very high level.

1. I think this particular outcome is met at a very high benchmark. My next analysis will likely look at a different learning outcome to improve.
ENT 100 Assessment Plan Data

Course Outcome

Build business models.

AY 2017-2018

MEASURE 1:
A measure was conducted through required reading and exercises (multiple choice)

MEASURE 1 TYPE: Direct

MEASURE 1 RESULTS:

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MEASURE 2:
A measure was conducted through research and a written test.

MEASURE 2 TYPE: Direct
## MEASURE 2 RESULTS:

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## FINDINGS

Using 80% or above in an assignment as a benchmark to determine understanding. Students were 15% of students reaching their benchmark for reading and the exercise. However, regarding the written test 54% reached the benchmark and 46% did not.

## TARGET LEVEL ACHIEVEMENT

Partially Met

## OVERALL SUMMARY OF FINDINGS

N/A

(OPTIONAL ENTRY: FILL OUT AFTER ENTERING THE RESULTS FOR THE LAST OUTCOME/GOAL BEING ASSESSED IF YOU WOULD LIKE TO PROVIDE AN OVERALL SUMMARY OF YOUR FINDINGS FOR THE COURSE/PROGRAM/DEPARTMENT BEING ASSESSED.)
WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

The summative assessments were effective at determining whether the students as a whole were comprehending the material.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

No weaknesses noted

1. Potentially using easier questions. However, only a small portion of students are actually reading the material.

MAKE PERSONNEL RELATED CHANGES

Planned Changes

OTHER

Find easier questions

DESCRIBE CHANGES

Only some students are thoroughly reading the material. By making questions easier, there could be better results.

PERSON/ GROUP RESPONSIBLE FOR ACTION

Marc Lafond

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

08/13/2018

PRIORITY

Medium

Course Outcome

Develop the entrepreneurial mindset.

AY 2017-2018

MEASURE 1:

A measure was conducted through required reading and exercises (multiple choice)

MEASURE 1 TYPE:

Direct

MEASURE 1 RESULTS:

Students 1  98
Students 2  98
Students 3  95
Students 4  93
Students 5  93
Students 6  93
Students 7  93
Students 8  93
Students 9  90
Students 10  88
Students 11  88
MEASURE 2:
A measure was conducted through testing.

MEASURE 2 TYPE:
Direct

MEASURE 2 RESULTS:

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</table>
Students 22 83
Students 23 80
Students 24 78
Students 25 75
Students 26 73
Students 27 70
Students 28 70
Students 29 68
Students 30 65

FINDINGS
Using 80% or above in an assignment as a benchmark to determine understanding. The reading and exercise met only 47% of the benchmark goal leaving 53% that fell below benchmark. The test however resulted in 77% of the class reaching the benchmark and 40% that did not.

TARGET LEVEL
ACHIEVEMENT
Partially Met

"IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

OVERALL SUMMARY OF FINDINGS
N/A

(Optional entry: fill out after entering the results for the last outcome/goal being assessed if you would like to provide an overall summary of your findings for the course/program/department being assessed.)

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
The two formative assessment methods had strength in demonstrating whether the outcomes could be met. The exercises were very extensive in covering this outcome because many questions were asked related to developing the entrepreneurial mindset.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
no weakness

ADDITIONAL COMMENTS:
N/A

1. Potential modifying questions to better achieve outcomes.

OTHER
Review questions
Review questions to ensure they are well understood by students. However, I feel that many students do not thoroughly read the chapters before starting the exercises.

Marc Lafond

08/13/2018

Low

Course Outcome

Generate and develop innovative thinking and ideas.

AY 2017-2018

MEASURE 1:

A measure was conducted through required reading and exercises

MEASURE 1 TYPE:

Direct

MEASURE 1 RESULTS:

Students 1  98
Students 2  95
Students 3  95
Students 4  93
Students 5  90
Students 6  85
Students 7  85
Students 8  83
Students 9  83
Students 10  81
Students 11  78
Students 12  78
Students 13  78
Students 14  73
Students 15  68
Students 16  65
Students 17  63
Students 18  48
Students 19  48
Students 20  46
Students 21  44
Students 22  44
Students 23  41
Students 24  40
Students 25  38
MEASURE 2:
A measure was conducted through testing.

MEASURE 2 TYPE:
Direct

MEASURE 2 RESULTS:

<table>
<thead>
<tr>
<th>Students</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>98</td>
</tr>
<tr>
<td>2</td>
<td>95</td>
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<td>28</td>
<td>65</td>
</tr>
<tr>
<td>29</td>
<td>53</td>
</tr>
</tbody>
</table>

FINDINGS
Using 80% or above in an assignment as a benchmark to determine understanding.
Only of 35% of the students met the reading and exercise benchmark. However, regarding the written test 69% reached the benchmark and 31% did not.

TARGET LEVEL
Achievement
Partially Met

Overall Summary of Findings
N/A
WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

The summative methods were strong enough to assess the students' understanding of the material. The questions were thorough enough to determine the scope of student understanding.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

No weaknesses were seen.

1. An instructor cannot force a student to read the material thoroughly, which I really feel what is happening. That is why I implemented the Q & A.

OTHER

Require more assignments focused on this outcome

DESCRIBE CHANGES

Require more assignments focused on this outcome

PERSON/ GROUP RESPONSIBLE FOR ACTION

Marc Lafond

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

08/13/2018

PRIORITY

Medium
ESL 92S Blitz Assessment Plan Data

Course Outcome

Students will show mastery of syllabus learning outcomes.

AY 2017-2018

MEASURE 1:
75% of students will show 25% growth from pretest to post-test

MEASURE 1 TYPE:
Direct

MEASURE 1 RESULTS:
n=18 50 questions on pretest/post-test

56% of students (10 out of 18) showed 25% or better growth from pretest to post test
39% of students (7 out of 18) showed 5% - 21.6% growth from pretest to post test
5% of students (1 out of 18) showed negative growth from pretest to post test

A passing grade on this test is 71% or 35 correct answers out of 50 questions. On the pretest, 6 out of 18 students (33%) scored 71% or higher. On the post-test, 14 out of 18 students (78%) scored 71% or higher. This data reflects a growth rate of 136% increase from pretest to post-test of the number of students with a passing grade.

FINDINGS

1. I overestimated the percentage of growth of individual students from pretest to post-test.
2. However, the data shows that the number of students achieving a passing grade from pretest to post-test was 136% which reflects that students did learn and master a significant proportion of the learning outcomes stated in the syllabus.

TARGET LEVEL

Partially Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

OVERALL SUMMARY OF FINDINGS

Further Action Planned

I developed this test based on the discrete grammatical structures outlined in the ESL 92S syllabus. I used this instrument as the basis for measuring what students knew entering the class in January 2018. Then in May 2018, the same instrument was used as the final exam in the class to measure growth in knowledge of the stated learning outcomes in the syllabus. Although the number of students who increased their score from pretest to post-test by 25% or more was only 56%, the number of students who actually received a passing grade increased by 136% from pretest to post-test. This result reflects the growth in learning of the outcomes stated in the syllabus.
WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

The vast majority of students in this class showed significant growth in mastery of learning outcomes as spelled out in the syllabus. The student who showed only minor growth scored high on the pretest and scored only a few points higher on the post-test. The 1 student who showed negative growth was a student whose attendance was sporadic, whose desire to improve her English was minimal until we came close to the WITHDRAWAL deadline (she was failing the class at that time), and who, by the time she decided to stay in the class rather than withdraw, was so far behind that it was very challenging for her to catch up.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Students whose motivation to improve their English is minimal will not show significant growth in English acquisition.

1. I have no control over an individual student's desire to improve English language acquisition. I DO have control over how materials are presented in an engaging manner to encourage students, whose motivation may be low, to activate the learning process in their acquisition. In Fall semester 2018, my class will be using a new text with new internet support. I will do my best to engage students in the LEARNING process so that stated learning outcomes from the syllabus are better achieved.

RESTRUCTURE OUTCOME STATEMENT

Planned Changes

REVISE MEASUREMENT APPROACH

Planned Changes

COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION

Planned Changes

CHANGE METHODS OF DATA COLLECTION

Planned Changes

DESCRIBE CHANGES

A new pre and post-test will be implemented in Fall 2018 that is provided by the publisher of the Structure 2 text. That will be the tool I use to assess where students are when they start the semester in August and what they have gained mastery of by the time they exit in December.

REVAMP SERVICES

Planned Changes

MAKE TECHNOLOGY RELATED IMPROVEMENTS

Planned Changes

MAKE PERSONNEL RELATED CHANGES

Planned Changes

IMPLEMENT ADDITIONAL TRAINING

Planned Changes

ADD NEW SERVICE(S) OR PROGRAM(S)

Planned Changes

DELETE SERVICE(S) OR PROGRAM(S)

Planned Changes

PERSON/ GROUP RESPONSIBLE FOR ACTION

Myself

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

08/20/2018
PRIORITY

Medium

DESCRIBE ANY ADDITIONAL RESOURCES NEEDED (LEAVE BLANK IF NO ADDITIONAL RESOURCES ARE NEEDED.)

I simply need to acquaint myself with the resources available through the new edition of the text we will be using so that students will take a publisher developed pre and post-test as opposed to one that I developed in order to see if there is more conclusive results based on the test questions.
FAS 160 Assessment Plan Data

Course Outcome

Students will be able to analyze the role of conflict in relationships and be able to provide examples.

AY 2017-2018

MEASURE 1:

Measure 1 consisted of a discussion board forum. Students were provided a prompt/question and asked to answer the prompt. Students were also asked to respond to other classmate within the discussion board forum. Students were measured by answering a discussion board question on Blackboard. The discussion board prompt is as followed: Why is conflict inevitable in a relationship? How can it help the relationship become better? Give real life examples.

MEASURE 1 TYPE: Direct

MEASURE 1 RESULTS:

63 students participated in this discussion. 48 students received 90-100% for this discussion based on the discussion board rubric. 0 students received 80-89% for this discussion based on the discussion board rubric. 4 students received 70-79% for this discussion based on the discussion board rubric. 0 students received 60-1% for this discussion based on the discussion board rubric. 11 students did not complete the activity. 52/63 passed

Based on student discussion board data, 85% of students participated in the activity. Based on student discussion board data, 76% of students successfully completed the activity based on the rubric. Based on student discussion board data, 15% of students did not successfully completed the activity based on the rubric.

MEASURE 2:

Exam

MEASURE 2 TYPE: Direct

MEASURE 2 RESULTS:

Measure 2 Results: 2 Students scored: 0/25, 0% or did not complete the measure 3 Student scored: 12/25, 48% 1 Students scored: 13/25, 52% 2 Student scored: 14/25, 56% 1 Students scored: 15/25, 60% 1 Student scored: 16/25, 68% 0 Student scored: 17/25, 68% 2 Students scored: 18/25, 72% 3 Students scored: 19/25, 76% 2 Students scored: 20/25, 80% 3 Students scored: 21, 84% 0 Students scored: 24, 96% 23 Students scored: 25 100%

35 of the 48 students passed this assessment. Or 73% of the students passed this assessment.
**FINDINGS**

In this outcome, we found that students did well. We believe students comprehended well this particular outcome. Overall 87 of the 111 students completed and were successful in these measures. Based on these data, 78% of the measured students successfully completed the above measures for this outcome.

**TARGET LEVEL ACHIEVEMENT**

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.*

Met

Further Action Unnecessary

**OVERALL SUMMARY OF FINDINGS**

Based on these data, we see that the success rate is met and we are pleased with the measures meeting student outcomes. It is apparent that these successful measures provide that this outcome is being successfully taught in 160 classes.

**WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

The FAS faculty believe that instruction and class climate are key elements for student success for this outcome. Due to the learning that took place, most students were successful on this particular outcome. The discussion board and exam questions provided validity while the rubric provided a reliability for measuring this outcome.

**WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

One weakness was that students were assessed, perhaps, too late in the semester.

1. We will assess earlier in the semester.

2. We will be more proactive in communicating assessment needs with associate faculty.

**RESTRUCTURE OUTCOME STATEMENT**

Planned Changes

**REVISE MEASUREMENT APPROACH**

Planned Changes

**COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION**

Planned Changes

**CHANGE METHODS OF DATA COLLECTION**

Planned Changes
Earlier data collection would be vital to assessing more effectively.

Planned Changes

Providing a concise training for associate faculty would be helpful for their understanding of assessment. Also, it may be beneficial to use Google docs when interacting with data with numerous faculty members. AWC does not have anything like Google docs to continually revise documents in a group setting.

Aryca Marron

08/20/2018

Low

Students will be able to evaluate the parental effect on dependency within interdependency theory.

Measure 1 consisted of a discussion board forum. Students were provided a prompt/question and asked to answer the prompt. Students were also asked to respond to other classmate within the discussion board forum. Students were measured by answering a discussion board question on Blackboard. The discussion board prompt is as followed: Dependency may sound like a bad thing to some students—particularly those just gaining independence from parents. Dependency within interdependency theory is generally positive. Please discuss the nature of dependency in the interdependency theory. How can partners thoughtfully protect and maintain the other’s well-being?

Measure 1 Type: Direct

Measure 1 Results:

- 63 students participated in this discussion.
- 48 students received 90-100% for this discussion based on the discussion board rubric.
- 0 students received 80-89% for this discussion based on the discussion board rubric.
- 4 students received 70-79% for this discussion based on the discussion board rubric.
- 0 students received 60-1% for this discussion based on the discussion board rubric.
- 11 students did not complete the activity.
Based on student discussion board data, 85% of students participated in the activity. Based on student discussion board data, 76% of students successfully completed the activity based on the rubric. Based on student discussion board data, 15% of students did not successfully completed the activity based on the rubric.

**MEASURE 2:**

**Exam**

**MEASURE 2 TYPE:** Direct

**MEASURE 2 RESULTS:**

- 8 Students scored: 0/25, 0% or did not complete the measure
- 0 Student scored: 12/25, 48%
- 1 Students scored: 13/25, 52%
- 1 Students scored: 14/25, 56%
- 2 Students scored: 15/25, 60%
- 1 Student scored: 16/25, 68%
- 0 Student scored: 17/25, 68%
- 2 Students scored: 18/25, 72%
- 2 Students scored: 19/25, 76%
- 3 Students scored: 20/25, 80%
- 0 Students scored: 21, 84%
- 0 Students scored: 24, 96%
- 22 Students scored: 25 100%
- 32/42 passed – 76% passed

**EVIDENCE ATTACHMENTS:**

Assessment_Standard discussion board rubric (2).rtf

**FINDINGS**

Based on these data, most of our FAS students were successful in completing this outcome.

The first measure showed that 83% were successful.

The second measure showed that 76% were successful.

**TARGET LEVEL**

**ACHIEVEMENT**

Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

**WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

We assessed the measures too late in the semester.

1. We need to assess earlier in the semester for optimal student participation. We believes more students would participate earlier in the semester--before withdraw deadlines.

2. We need to communicate earlier on in the semester with associate faculty.

**RESTRUCTURE OUTCOME STATEMENT**

Planned Changes
<table>
<thead>
<tr>
<th>Course Outcome</th>
<th>Students will demonstrate an understanding of gender differences in communication and be able to assess why these differences are observed.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course Outcome</strong></td>
<td></td>
</tr>
<tr>
<td><strong>AY 2017-2018</strong></td>
<td></td>
</tr>
<tr>
<td><strong>MEASURE 1:</strong></td>
<td>Measure 1 consisted of a discussion board forum. Students were provided a prompt/question and asked to answer the prompt. Students were also asked to respond to other classmate within the discussion board forum. Students were measured by answering a discussion board question on Blackboard. Measure 1 for outcome 1 discussion question: How do women and men differ in their communication patterns? Why do you think we see these differences?</td>
</tr>
<tr>
<td><strong>MEASURE 1 TYPE:</strong></td>
<td>Direct</td>
</tr>
<tr>
<td><strong>MEASURE 1 RESULTS:</strong></td>
<td>63 students participated in this discussion. 48 students received 90-100% for this discussion based on the discussion board rubric. 0 students received 80-89% for this discussion based on the discussion board rubric.</td>
</tr>
</tbody>
</table>
4 students received 70-79% for this discussion based on the discussion board rubric.
0 students received 60-1% for this discussion based on the discussion board rubric.
11 students did not complete the activity.

Based on student discussion board data, 85% of students participated in the activity.
Based on student discussion board data, 76% of students successfully completed the activity based on the rubric.
Based on student discussion board data, 15% of students did not successfully complete the activity based on the rubric.

MEASURE 2:
Exam
MEASURE 2 TYPE: Direct
MEASURE 2 RESULTS: 49 students were measured
46 students completed the measure
Measure 2 Results:
3 Students scored: 0/25, 0% or did not complete the measure
1 Student scored: 12/25, 48%
2 Students scored: 13/25, 52%
4 Students scored: 15/25, 60%
1 Student scored: 17/25, 68%
3 Students scored: 18/25, 72%
2 Students scored: 19/25, 76%
1 Students scored: 20/25, 80%
14 Students scored: 21, 84%
4 Students scored: 24, 96%
14 Students scored: 25 100%

EVIDENCE ATTACHMENTS: Rubric for Assessment 2017.doc Assessment_Standard discussion board rubric (2).rtf

FINDINGS
Overall 95 of the 112 students completed and were successful in these measures. Based on these data, 85% of the measured students successfully completed the above measures for this outcome.

TARGET LEVEL
ACHIEVEMENT
Met

OVERALL SUMMARY OF FINDINGS
We see that the success rate is met and we are pleased with the measures meeting student outcomes. These measures are result of the instruction related to the course outcomes. That said, it appears, from these data, effective instruction (based on outcome 1) is apparent for the 160 courses assessed.

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
One strength displayed here was that the the instruction within 160 courses aligns with the course outcomes. In other words, instructors are not deviated from instructional aims. The measures also reflect exactly the outcomes assessed.
**WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

One weakness was the course planning. In one of the courses measured, the instructor allows students to drop the lowest exam. In this case, the outcomes assessed here were within the last exam in this particular course. That said, the last exam was a class favorite to drop, thus, less students participated in the measure. Had the outcomes been measured in an earlier exam, it is assumed more participation would have occurred.

**ADDITIONAL COMMENTS:**

It is clear that the outcome assessed here was successful. Students displayed learning of the content.

1. Assess measures of outcomes earlier in the semester.
2. Provide students with a different measure in the future.
3. Student interviews may be an option for future outcome measures.

---

**RESTRUCTURE OUTCOME STATEMENT**

- Planned Changes

**REVISE MEASUREMENT APPROACH**

- Planned Changes

**COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION**

- Planned Changes

**CHANGE METHODS OF DATA COLLECTION**

- Planned Changes

**DESCRIBE CHANGES**

We plan to implement earlier collection of data so that outcomes do not fall within the drop exam option. We will also communicate more effective and earlier on in the semester with associate faculty. Additionally, during semester start up, we will disseminate information to associate faculty regarding assessment.

**REVAMP SERVICES**

- Planned Changes

**MAKE TECHNOLOGY RELATED IMPROVEMENTS**

- Planned Changes

**MAKE PERSONNEL RELATED CHANGES**

- Planned Changes

**IMPLEMENT ADDITIONAL TRAINING**

- Planned Changes

**ADD NEW SERVICE(S) OR PROGRAM(S)**

- Planned Changes

**DELETE SERVICE(S) OR PROGRAM(S)**

- Planned Changes

**DESCRIBE CHANGES**

We need to be more effective in communicating assessment process within our program. Google docs may be a better option for us in the realm of technology. A simple and concise training for associate faculty could be effective for learning more about assessment practices.

**PERSON/GROUP RESPONSIBLE FOR ACTION**

Aryca Marron

**TARGET DATE FOR IMPLEMENTATION OF THE ACTION**

08/20/2018
PRIORITY

Medium

DESCRIBE ANY ADDITIONAL RESOURCES NEEDED (LEAVE BLANK IF NO ADDITIONAL RESOURCES ARE NEEDED.)

The Office of Assessment could provide additional resources for associate faculty to learn more about assessment.
FAS 204 Assessment Plan Data

Course Outcome

Students will be able to illustrate how families use gender to define themselves and the varying roles and tasks which are associated with the family as a unit.

AY 2017-2018

MEASURE 1:

This outcome was assessed by a short writing assignment. Students were provided a prompt, directions, and rubric to guide their writing. The writing assignment was 500 words.

MEASURE 1 TYPE:

Direct

MEASURE 1 RESULTS:

There were 38 students who were assessed. Data for two courses were obtained as followed:

<table>
<thead>
<tr>
<th>Count</th>
<th>Minimum Value</th>
<th>Maximum Value</th>
<th>Range</th>
<th>Average</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Variance</th>
</tr>
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<td>38.75000</td>
<td>18.55714</td>
<td>344.36728</td>
</tr>
</tbody>
</table>

| 90 - 100 | 7 |
| 80 - 89  | 2 |
| 70 - 79  | 3 |
| 60 - 69  | 1 |
| 50 - 59  | 1 |
| 0 - 9    | 4 |

Count | Minimum Value | 20 | 0 |
Maximum Value 50.00000
Range 50.00000
Average 41.20000
Median 50.00000
Standard Deviation 17.43158
Variance 303.86000
90 - 100 17
0 - 9 3
Less than 0 0

EVIDENCE ATTACHMENTS: Assessment Activity Rubric.docx

FINDINGS
As stated above, the findings were successful for this outcome. The data yielded for this outcome was that 76% of the students met this outcome successfully.

TARGET LEVEL ACHIEVEMENT
Met

OVERALL SUMMARY OF FINDINGS
N/A

(OPTIONAL ENTRY: FILL OUT AFTER ENTERING THE RESULTS FOR THE LAST OUTCOME/GOAL BEING ASSESSED IF YOU WOULD LIKE TO PROVIDE AN OVERALL SUMMARY OF YOUR FINDINGS FOR THE COURSE/PROGRAM /DEPARTMENT BEING ASSESSED.)

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Based on these data (above), the FAS faculty believe that the rubric, directions, and prompt were effective for this assessment measuring this particular outcome.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
FAS faculty believe that additional measures should be use in subsequent assessment efforts.

ADDITIONAL COMMENTS:
N/A

1. Although students met this outcome, FAS faculty would like to see additional forms of assessment used for this outcome.

REVISE MEASUREMENT APPROACH
Planned Changes
**COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION**

**Planned Changes**

The FAS faculty see now that additional assessment measures should have been used to assess this outcome. In the future additional assessment pieces will be used to further assess this outcome.

**OTHER**

**DESCRIBE CHANGES**

Additional forms of assessment

As noted above, it would be beneficial to include additional forms of assessment to assess this outcome.

**PERSON/ GROUP RESPONSIBLE FOR ACTION**

Aryca Marron

**TARGET DATE FOR IMPLEMENTATION OF THE ACTION**

08/20/2018

**PRIORITY**

Medium

**DESCRIBE ANY ADDITIONAL RESOURCES NEEDED (LEAVE BLANK IF NO ADDITIONAL RESOURCES ARE NEEDED.)**

Collaboration among FAS faculty to ensure assessment pieces are in place within all 204 sections.

---

**Course Outcome**

Students will be able to illustrate how the family is the primary socializing unit in conveying gender roles to children.

**AY 2017-2018**

**MEASURE 1:**

Measure one for this outcome was a short writing assignment. Students were provided a prompt, directions, and rubric to guide their writing. The writing assignment was 500 words. The rubric and directions is attached.

**MEASURE 1 TYPE:**

Direct

**MEASURE 1 RESULTS:**

There were 37 students assessed. Based on the rubric (attached below), 35 students received 70% or higher on the writing assignment. Or 95% of the enrolled students received a 70% or higher on the assignment. More specifically and based on the rubric, the results are as followed: 0% N=2; 70% N=1; 80% N=1; 90% N=6; 100% N=27.

**MEASURE 2:**

Measure two assessed within exam 1.

**MEASURE 2 TYPE:**

Direct

**MEASURE 2 RESULTS:**

There were 37 students assessed. Based on the two questions asked regarding this outcome, 35 students answered the multiple choice questions correctly and 2 answered incorrectly. However, 1 of the 2 students answered the questions with theories mixed up. That said, they comprehended the theoretical conceptualizations, but mixed
them while taking the exam.

EVIDENCE ATTACHMENTS:
Assessment Activity Rubric.docx

FINDINGS
What we found within assessing this outcome was that majority of our student met this outcome. In fact, of the students assessed 95% met the outcome with a 70% or higher.

TARGET LEVEL
ACHIEVEMENT
Met

OVERALL SUMMARY OF FINDINGS
N/A

(OPTIONAL ENTRY: FILL OUT AFTER ENTERING THE RESULTS FOR THE LAST OUTCOME/GOAL BEING ASSESSED IF YOU WOULD LIKE TO PROVIDE AN OVERALL SUMMARY OF YOUR FINDINGS FOR THE COURSE/PROGRAM /DEPARTMENT BEING ASSESSED.)

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
It appears that the strengths here were that faculty members focused on the required outcomes while delivering instruction. Also, the readings (textbook, articles) and media displayed for instructional use aligned well with this outcome. The assessments used were related to the outcome. That said, the outcomes were directly assessed with student data. The assessments were valid measures for this outcome. Also, the writing rubric (attached) was a useful tool for this assessment that assisted in measuring this particular outcome. The rubric provided a common baseline for fair grading.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
No weaknesses are identified for this assessment.

ADDITIONAL COMMENTS:
N/A

1. As for the FAS faculty, we believe the outcome was taught and assessed well. We do not have any recommendations at this time.

CHANGE METHODS OF DATA COLLECTION
Planned Changes

DESCRIBE CHANGES
Based on the collected data, one of the faculty sent the wrong data. That said, the FAS faculty will be clearer when requesting student data.

MAKE TECHNOLOGY RELATED IMPROVEMENTS
Planned Changes

DESCRIBE CHANGES
The FAS faculty would like to start using Google docs for sharing assessment plans and related information.
PERSON/ GROUP RESPONSIBLE FOR ACTION
Aryca Marron

TARGET DATE FOR IMPLEMENTATION OF THE ACTION
08/20/2018

PRIORITY
Medium

Course Outcome
Students will demonstrate how various social institutions use gender as an avenue to both reward and discriminate.

AY 2017-2018

MEASURE 1:
Exam number 5 encompassed and fully assessed this outcome.

MEASURE 1 TYPE:
Direct

MEASURE 1 RESULTS:
Data from course 1 is as followed:

<table>
<thead>
<tr>
<th>Count</th>
<th>Minimum Value</th>
<th>Maximum Value</th>
<th>Range</th>
<th>Average</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Variance</th>
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</thead>
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<td>77.40000</td>
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</tr>
</tbody>
</table>

90 - 100 6
80 - 89 8
70 - 79 4
0-9 2

Data from course 2 is as followed:

<table>
<thead>
<tr>
<th>Count</th>
<th>Minimum Value</th>
<th>Maximum Value</th>
<th>Range</th>
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<th>Standard Deviation</th>
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<td>76.00000</td>
<td>40.25597</td>
<td>1620.54321</td>
</tr>
</tbody>
</table>

90 - 100 5
80 - 89 3
70 - 79 2
FINDINGS

There were 38 students assessed for this outcome. There were 28 students or 74% of the students who met this outcome. That said, majority of our 204 students met this outcome successfully.

TARGET LEVEL ACHIEVEMENT

Met

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

One strength was that this exam was an extremely reliable form of assessment for this outcome. The exam questions were directly related to this outcome.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

One of the weaknesses was that some students opted out of taking this exam. In our FAS 204 courses, we give students the option of dropping their lowest exam grade. That said, this last exam was the opt out option for some students.

ADDITIONAL COMMENTS:

N/A

1. FAS faculty could change the opt of/drop exam option. Or FAS faculty could change the type of assessment to ensure more student participation.

REVISE MEASUREMENT APPROACH

Planned Changes

COLLECT AND ANALYZE ADDITIONAL DATA AND INFORMATION

Planned Changes

DESCRIBE CHANGES

The FAS faculty could discuss further the best approach for assessing this outcome.

OTHER

Additional forms of assessment

DESCRIBE CHANGES

Additional or different forms of assessment could help our program engage more students in our assessment efforts.

PERSON/ GROUP RESPONSIBLE FOR ACTION

Aryca Marron

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

08/20/2018

PRIORITY

Medium

Course Outcome

Students will generate appropriate writing discourse according to the AWC Writing Intensive Courses: General Education guidelines.

AY 2017-2018
MEASURE 1:
Writing Intensive requirements were assessed by 4 writing assignments. There were 2 "Assessment Activities" and 2 "Papers" required for FAS 204 courses.

Early on in this semester students were assigned Assessment Activities. These Assessment Activities were 500-word writing assignments that included directions, prompt choices, and a rubric.

MEASURE 1 TYPE: Direct
MEASURE 1 RESULTS:
Data below for the two Assessment Activities (shorter 500-word requirement papers):

<table>
<thead>
<tr>
<th>Range</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>90 - 100</td>
<td>50</td>
</tr>
<tr>
<td>80 - 89</td>
<td>6</td>
</tr>
<tr>
<td>70 - 79</td>
<td>4</td>
</tr>
<tr>
<td>60 - 69</td>
<td>2</td>
</tr>
<tr>
<td>50 - 59</td>
<td>1</td>
</tr>
<tr>
<td>0 - 9</td>
<td>13</td>
</tr>
</tbody>
</table>

MEASURE 2:
Students then transitioned to longer writing assignments called Papers. The longer writing assignment required 1,000 words for each paper. The Paper assignments included directions, prompt choices, and a rubric.

MEASURE 2 TYPE: Direct
MEASURE 2 RESULTS:
Data below for the two Paper (longer 1,000-word requirement papers) assignments:

<table>
<thead>
<tr>
<th>Range</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>90 - 100</td>
<td>41</td>
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<tr>
<td>80 - 89</td>
<td>18</td>
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<tr>
<td>70 - 79</td>
<td>4</td>
</tr>
<tr>
<td>60 - 69</td>
<td>3</td>
</tr>
<tr>
<td>0-9</td>
<td>10</td>
</tr>
</tbody>
</table>

EVIDENCE ATTACHMENTS:
Paper Directions 2017(1).docx Assessment Activity Rubric.docx

FINDINGS
There were 38 students assessed.
83% of the students successfully met the first measure (assessment activities).
79% of the students successfully met the second measure (papers).

TARGET LEVEL ACHIEVEMENT
Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.
Further Action Unnecessary

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Directions, prompts, and rubric were strengths for this assessment.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
FAS faculty do not identify weaknesses for this measure.
MEASURES?

1. At this time, no recommendations are considered for this measure. We have found these measures to be effective, valid and reliable for meeting writing intensive requirements.

<table>
<thead>
<tr>
<th>CHANGE METHODS OF DATA COLLECTION</th>
<th>Planned Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESCRIBE CHANGES</td>
<td>We will make an effort to be clearer as one faculty member sent incorrect data for this measure.</td>
</tr>
<tr>
<td>MAKE TECHNOLOGY RELATED IMPROVEMENTS</td>
<td>Planned Changes</td>
</tr>
<tr>
<td>DESCRIBE CHANGES</td>
<td>FAS faculty intent to use Google docs to ensure better collaboration and assessment efforts.</td>
</tr>
<tr>
<td>PERSON/GROUP RESPONSIBLE FOR ACTION</td>
<td>Aryca Marron</td>
</tr>
<tr>
<td>TARGET DATE FOR IMPLEMENTATION OF THE ACTION</td>
<td>08/20/2018</td>
</tr>
<tr>
<td>PRIORITY</td>
<td>Low</td>
</tr>
</tbody>
</table>
FIN 100 Assessment Plan Data

Course Outcome

Conduct active securities trading.

AY 2017-2018

MEASURE 1:
A measure was conducted through required reading and exercises (multiple choice)

MEASURE 1 TYPE:
Direct

MEASURE 1 RESULTS:
Student 1 100
Student 2 100
Student 3 99
Student 4 97
Student 5 96
Student 6 95
Student 7 94
Student 8 92
Student 9 88
Student 10 0

MEASURE 2:
A measure was conducted through research and a written test.

MEASURE 2 TYPE:
Direct

MEASURE 2 RESULTS:
Student 1 99
Student 2 99
Student 3 97
Student 4 94
Student 5 92
Student 6 87
Student 7 79
Student 8 72
Student 9 0
Student 10 0

FINDINGS
Using 80% or above in an assignment as a benchmark to determine understanding. The reading and exercise met the benchmark. However, regarding the written test 60% reached the benchmark and 40% did not.

TARGET LEVEL
Partially Met

*IF LESS THAN MET,
Further Action Planned
PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

OVERALL SUMMARY OF FINDINGS

N/A

(OPTIONAL ENTRY: FILL OUT AFTER ENTERING THE RESULTS FOR THE LAST OUTCOME/GOAL BEING ASSESSED IF YOU WOULD LIKE TO PROVIDE AN OVERALL SUMMARY OF YOUR FINDINGS FOR THE COURSE/PROGRAM /DEPARTMENT BEING ASSESSED.)

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Both assessments were very successful in measuring student success in reaching an understanding of the outcome. Clear data exhibited the majority of students had a comprehension of the subject matter. The course material was reflective of two different books, one being based on superficial level in understanding securities trading.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

There were no weakness in the measurement tools.

ADDITIONAL COMMENTS:

N/A

1. There is potential for including videos in the course that covers this topic. Also, some students were just lazy in conducting the research needed to evaluate the test questions.

MAKE TECHNOLOGY RELATED IMPROVEMENTS

Planned Changes

DESCRIBE CHANGES

Find videos that may assist students visually understand the concepts of trading.

PERSON/ GROUP RESPONSIBLE FOR ACTION

Marc Lafond

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

08/20/2018

PRIORITY

Medium

Course Outcome

Evaluate rate of return with levels of risk.

AY 2017-2018
MEASURE 1: A measure was conducted through required reading and exercises (multiple choice).

MEASURE 1 TYPE: Direct

MEASURE 1 RESULTS:

<table>
<thead>
<tr>
<th>Student</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student 1</td>
<td>100</td>
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<tr>
<td>Student 2</td>
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<tr>
<td>Student 3</td>
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<td>85</td>
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<td>Student 5</td>
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<td>Student 9</td>
<td>57</td>
</tr>
<tr>
<td>Student 10</td>
<td>46</td>
</tr>
</tbody>
</table>

MEASURE 2: A measure was conducted through research and a written test.

MEASURE 2 TYPE: Direct

MEASURE 2 RESULTS:

<table>
<thead>
<tr>
<th>Student</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student 1</td>
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</tr>
<tr>
<td>Student 2</td>
<td>93</td>
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<tr>
<td>Student 3</td>
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<tr>
<td>Student 4</td>
<td>65</td>
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<td>Student 5</td>
<td>64</td>
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<tr>
<td>Student 6</td>
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<tr>
<td>Student 7</td>
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<tr>
<td>Student 8</td>
<td>10</td>
</tr>
<tr>
<td>Student 9</td>
<td>0</td>
</tr>
<tr>
<td>Student 10</td>
<td>0</td>
</tr>
</tbody>
</table>

FINDINGS

Using 80% or above in an assignment as a benchmark to determine understanding. Regarding the reading and exercise, there were 60% of the students that reached the benchmark and 40% did not. However, regarding the written test 30% reached the benchmark and 70% did not.

TARGET LEVEL

Achievement

Partially Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.*

OVERALL SUMMARY OF FINDINGS

N/A

(Optional entry: Fill out after entering the results for the last outcome/goal being assessed if you would like to provide an overall summary of)
YOUR FINDINGS FOR THE COURSE/PROGRAM /DEPARTMENT BEING ASSESSED.

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Both assessments were very successful in measuring student ability in reaching an understanding of the outcome. Clear data exhibited that most students did not have a comprehension of the subject matter regrading risk and return. The course material was reflective in using two different books, one being based on a superficial level in understanding securities trading and the other text a more theoretical approach.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Students may need to see a visual on this material to have a better understanding of risk and return.

ADDITIONAL COMMENTS:

N/A

1. I am planning on looking for more videos to allow students a visual in reviewing the material.

MAKE TECHNOLOGY RELATED IMPROVEMENTS

Planned Changes

DESCRIBE CHANGES

I am planning on looking for more videos to allow students a visual in reviewing the material.

PERSON/ GROUP RESPONSIBLE FOR ACTION

Marc Lafond

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

08/13/2018

PRIORITY

Medium

Course Outcome

Understand, construct and manage an equity portfolio.

AY 2017-2018

MEASURE 1:

Students create and maintain a stock portfolio throughout the semester and also provide an evaluation of each firm in their portfolio based on weekly news reports.

MEASURE 1 TYPE:

Direct

MEASURE 1 RESULTS:

<table>
<thead>
<tr>
<th>Student</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student 1</td>
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<tr>
<td>Student 2</td>
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<td>Student 5</td>
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<td>9</td>
<td>40</td>
</tr>
<tr>
<td>10</td>
<td>8</td>
</tr>
</tbody>
</table>

**MEASURE 2:**

Students are given required reading assignments and homework exercises concerning portfolio theory.

**MEASURE 2 TYPE:**

Direct

**MEASURE 2 RESULTS:**

<table>
<thead>
<tr>
<th>Student</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>100</td>
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<tr>
<td>3</td>
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<td>9</td>
<td>80</td>
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<td>10</td>
<td>72</td>
</tr>
</tbody>
</table>

**FINDINGS**

The class benchmark was 80% for the practical application of portfolio construction, management, and comprehension. Out of this group, 60% of the class achieved scores that were acceptable and 40% of the class fell below the benchmark.

The class benchmark was 80% for the readings and exercise regarding portfolio theory. Out of this group, 90% achieved acceptable scores and 10% fell below benchmark.

**TARGET LEVEL ACHIEVEMENT**

Partially Met

**OVERALL SUMMARY OF FINDINGS**

N/A

**WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

The methodology implemented to measure comprehension of portfolio theory consisted of a practical measure and a theoretical measure. Both are very strong measures in determining a students understanding of a stock portfolio.

**WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

A better tie in between news events and portfolio performance could have been initiated.
### ASSESSMENTS OF YOUR MEASURES?

**ADDITIONAL COMMENTS:** N/A

1. There may have been an initial formatting issue among students not familiar with excel, which may have caused a less than desirable outcome regarding the portfolio construction. I will attempt to provide a video tutorial on setting up a stock portfolio and obtaining the calculations to obtain the rate of return.

2. N/A

3. N/A

### MAKE TECHNOLOGY RELATED IMPROVEMENTS

**Planned Changes**

**DESCRIBE CHANGES**

Attempt to create a video if time permits this semester.

**PERSON/ GROUP RESPONSIBLE FOR ACTION**

marc lafond

**TARGET DATE FOR IMPLEMENTATION OF THE ACTION**

08/20/2018

**PRIORITY**

Medium

**DESCRIBE ANY ADDITIONAL RESOURCES NEEDED (LEAVE BLANK IF NO ADDITIONAL RESOURCES ARE NEEDED.)**

N/A
# GLG 101 Hill Assessment Plan Data

## Course Outcome

List the 8 common elements that make up over 98% of all minerals and rocks. (5)

**AY 2017-2018**

<table>
<thead>
<tr>
<th>MEASURE 1:</th>
<th>Pretest &amp; Final Exam 70% competency</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEASURE 1 TYPE:</td>
<td>Direct</td>
</tr>
<tr>
<td>MEASURE 1 RESULTS:</td>
<td>Using multiple choice questions 17% got the answer correct on the pretest &amp; 59% got it correct on the Final.</td>
</tr>
</tbody>
</table>

**FINDINGS**

Student knowledge increased by 42%.

**TARGET LEVEL ACHIEVEMENT**

Not Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.*

Further Action Planned

**WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

Repetition helps

1. I could teach less and repeat more, or I could make easier questions or I could lower my goals.

**RESTRUCTURE OUTCOME STATEMENT**

Planned Changes

**DESCRIBE CHANGES**

Will choose easier outcomes to assess. They still need to know the material I cover. Whether or not they avail themselves of the opportunity is beyond my control.

## Course Outcome

Understand the constituents of an organic Sedimentary Rock. (22)

**AY 2017-2018**
MEASURE 1: pretest & Final
MEASURE 1 TYPE: Direct
MEASURE 1 RESULTS: Pretest scored 47%, Final scored 94% Increase of 47%
MEASURE 5 TYPE: Direct
EVIDENCE ATTACHMENTS: Chill_FA-17.xlsx

FINDINGS
TARGET LEVEL ACHIEVEMENT
*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
no strengths, impartial

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
no weaknesses, impartial

1. none

DESCRIBE CHANGES none

Course Outcome Understand the difference between a Scientific Theory and Hypothesis. (8)

AY 2017-2018

MEASURE 1: Pretest and Final, multiple choice: 70% goal
MEASURE 1 TYPE: Direct

FINDINGS
TARGET LEVEL ACHIEVEMENT
*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

Students increased from 43% correct to 64% correct, an increase of 20%
Not Met
Further Action Planned
WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

No strengths displayed

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

No weaknesses displayed

ADDITIONAL COMMENTS:

The material is presented through lecture, reinforced through labs and given as reading homework (which they don't do). There is also little evidence that they study.

1.

Unknown, this is a concept that I introduce early and repeat frequently throughout the semester.

RESTRUCTURE OUTCOME STATEMENT

Planned Changes

DESCRIBE CHANGES

Make questions simpler or give them less options in the multiple choice. I cannot teach the concept any more thoroughly than I already do, I use powerpoints, videos, lectures, labs and repetition. I have gotten feedback from students to the effect that they do not study for tests. I cannot correct the poor or perhaps learned choice of my students. I also cannot simply give them the answers as I do not wish to work for a diploma mill.
HIS 110 Assessment Plan Data

Course Outcome: Define and discuss the historical significance of key historical terms and concepts

AY 2017-2018

MEASURE 1: 85% of students will score 85% or above on short answer exams covering key historical terms and concepts from the ancient period of world history (Prehistory to 500 CE).

MEASURE 1 TYPE: Direct

MEASURE 1 RESULTS: One section participated in this assessment. N=15; 100% (15/15) participated in the assessment. Of the students participating in the assessment, 73% (11/15) scored 85% or above on the assessment. 27% (4/15) scored below 85%. 87% (13/15) scored above 70%.

MEASURE 2: 85% of students will score 85% or above on short answer exams covering key historical terms and concepts from the medieval period of world history (500CE-1500CE).

MEASURE 2 TYPE: Direct

MEASURE 2 RESULTS: One section participated in this assessment. N=15; 93% (14/15) participated in the assessment. Of the students participating in the assessment, 93% (13/14) scored 85% or above on the assessment. 7% (1/14) scored below 85%.

FINDINGS: The target was met. Improvement was observed between the first assessment and the second assessment. The number of students scoring below 85% improved from 27% to 7%.

Students who consistently completed the formative chapter assessments performed better on the unit exams.

TARGET LEVEL ACHIEVEMENT: Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES? Students improved over the course of the semester. After reviewing the first assessment, students were better prepared to respond to the terms and concepts on the second assessment.

WHAT WEAKNESSES WERE Historical thinking (critical thinking) skills need development.
This semester a new eText and online courseware was used for the class. Students completed more formative assessments throughout the class, leading greater student success and learning.

1. Continue to include formative assessments to support student learning.

PERSON/ GROUP RESPONSIBLE FOR ACTION
Monica Ketchum

TARGET DATE FOR IMPLEMENTATION OF THE ACTION
05/28/2018

PRIORITY
Low

Course Outcome
Evaluate a primary or secondary source

AY 2017-2018

MEASURE 1:
90% of students will score 85% or above on a document analysis exercise during week 8 of the course.

MEASURE 1 TYPE:
Direct

MEASURE 1 RESULTS:
One section participated in the assessment. N=15; 100% (N-15/15) of the students in the course participated in the assessment. 93% (14/15) scored 85% or above on the assessment.

MEASURE 2:
100% of students will score 85% or above on a document analysis exercise during week 16 of the course.

MEASURE 2 TYPE:
Direct

MEASURE 2 RESULTS:
One section participated in the assessment. N=15; 87% (13/15) of the students participated in the assessment. 100% (13/13) scored 85% or above on the assessment.

FINDINGS
Most students were competent at evaluating documentary sources by the mid-point of the course. All persisting students were competent at evaluating documentary sources by the end of the course.

TARGET LEVEL ACHIEVEMENT
Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

Further Action Unnecessary

WHAT STRENGTHS WERE
The assessment demonstrates the effectiveness of weekly practice in document
DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

None observed.

1. Continue weekly document analysis assignments.

AY 2017-2018
HIS 111 Assessment Plan Data

Course Outcome: Evaluate a primary or secondary source

AY 2017-2018

MEASURE 1: 90% of students will score 85% or above on a document analysis in week 8 of the semester.

MEASURE 1 TYPE: Direct

MEASURE 1 RESULTS: One section was assessed on this measure. N=19. 100% (19/19) students participated in the assessment. 84% (16/19) scored 85% or above on the assessment.

MEASURE 2: 90% of students will score 85% or above on a document analysis in week 16 of the course.

MEASURE 2 TYPE: Direct

MEASURE 2 RESULTS: One section was assessed on this measure. N=19. 95% (18/19) of students participated in the assessment. 94% (17/18) scored 85% or above on the assessment.

FINDINGS: Although the first measure was not met, the second measure was, demonstrating improvement in historical thinking and analysis skills.

TARGET LEVEL ACHIEVEMENT: Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES? Document analyses remain a critical part in developing critical thinking skills.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES? None observed.

1. Continue assigning document analysis exercises and reinforcing student skills in evaluating the texts.

PERSON/ GROUP RESPONSIBLE FOR ACTION: Monica Ketchum
TARGET DATE FOR IMPLEMENTATION OF THE ACTION: 06/11/2018

PRIORITY: Low
# HIS 121 Assessment Plan Data

## Course Outcome
Define and discuss the historical significance of key historical terms and concepts

## AY 2017-2018

<table>
<thead>
<tr>
<th>MEASURE 1:</th>
<th>90% of students will score 75% or above on a written exam covering key historical terms from the period 1500-1783.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEASURE 1 TYPE:</td>
<td>Direct</td>
</tr>
<tr>
<td>MEASURE 1 RESULTS:</td>
<td>Three online sections were assessed. N=59; 90% (53/59) students participated in the assessment. 62% (33/53) scored 75% or above on the assessment.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MEASURE 2:</th>
<th>90% of students will score 75% or above on a written exam covering key historical terms from the period 1783-1876.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEASURE 2 TYPE:</td>
<td>Direct</td>
</tr>
<tr>
<td>MEASURE 2 RESULTS:</td>
<td>Three online sections were assessed. N=59; 96% (51/59) students participated in the assessment. 63% (32/51) scored 75% or above on the assessment.</td>
</tr>
</tbody>
</table>

## FINDINGS
While the majority of students in the classes met the target, the results were significantly below the target of 90%. There were cases of students submitting incomplete exams and not responding to the questions completely. The courses assessed were online, running 8-weeks and 16-weeks, taught by two different instructors. The exams were identical. The success rates were lower than those of the previous year, during which face-to-face classes were also included in the data. Based on the results, perhaps students need clearer instructions in order to understand the expectations of the instructors in responding to the questions.

## TARGET LEVEL ACHIEVEMENT
Not Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.*

Further Action Planned

## WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
The assessment demonstrated student critical thinking skills.

## WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Sample responses and clearer instructions are needed for students in online classes. Instructors need to conduct norming sessions prior to grading exams to ensure consistency.

1. Instructors need to conduct norming sessions prior to grading in order to establish
2. Clearer instructions and sample responses should be provided to students in online classes so that they understand the course expectations.

<table>
<thead>
<tr>
<th>REVISE MEASUREMENT APPROACH</th>
<th>Implemented Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESCRIBE CHANGES</td>
<td>Instructors created sample response to include with exam study guides for online sections.</td>
</tr>
<tr>
<td>PERSON/GROUP RESPONSIBLE FOR ACTION</td>
<td>Monica Ketchum</td>
</tr>
<tr>
<td>TARGET DATE FOR IMPLEMENTATION OF THE ACTION</td>
<td>06/11/2018</td>
</tr>
<tr>
<td>PRIORITY</td>
<td>Medium</td>
</tr>
</tbody>
</table>
## HIS 122 Assessment Plan Data

### Course Outcome
Define and discuss the historical significance of key historical terms and concepts

### AY 2017-2018

<table>
<thead>
<tr>
<th>MEASURE 1</th>
<th>90% of students will score 75% or above on a written assessment of key historical terms and their significance for the period 1865-1941.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TYPE:</td>
<td>Direct</td>
</tr>
<tr>
<td>RESULTS:</td>
<td>Three online sections were assessed. N=52. 75% (39/52) students participated in the assessment. 77% (N=30/39) scored 75% or above on the assessment.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MEASURE 2</th>
<th>90% of students will score 75% or above on a written assessment of key historical terms and their significance for the period 1939-1999.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TYPE:</td>
<td>Direct</td>
</tr>
<tr>
<td>RESULTS:</td>
<td>Three online sections were assessed. N=52. 83% (43/52) students participated in the assessment. 84% (N=36/43) scored 75% or above on the assessment.</td>
</tr>
</tbody>
</table>

### FINDINGS
Although the target was not met, student participation in the assessment improved from 75% to 83% and there was an increase in the number (and percentage) of students achieving the target (6 more students met the target, and percentage increase was 7%). Of those students meeting the target, over half scored 90% or above on each assessment (19/30 and 27/43, respectively).

### TARGET LEVEL ACHIEVEMENT
Partially Met

**IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.** Further Action Planned

### WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
This measure is a valid assessment of student learning as it demonstrates students’ historical/critical thinking skills. The assessment helped instructors identify deficiencies in knowledge of key historical concepts.

### WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
There was a lower than expected participation rate among students, particularly on the first assessment. The assessments were part of the mid-term and final exams and some students completed one portion, but not the written portion.

Norming of grading among instructors should occur prior to assessment to ensure consistency.

A written example and clearer instruction might help students better understand the
instructors’ expectations for the responses, as those with lower scores did not answer the questions completely.

1. Instructors should hold norming sessions prior to assessment to ensure that grading is consistent.

2. Create a sample response for students to model and clearer instructions in the study guide.

3. Better communication about exam times and due dates to ensure more students complete the assessment.

<table>
<thead>
<tr>
<th>REVISE MEASUREMENT APPROACH</th>
<th>Planned Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERSON/GROUP RESPONSIBLE FOR ACTION</td>
<td>Monica Ketchum</td>
</tr>
<tr>
<td>TARGET DATE FOR IMPLEMENTATION OF THE ACTION</td>
<td>06/18/2018</td>
</tr>
<tr>
<td>PRIORITY</td>
<td>Medium</td>
</tr>
</tbody>
</table>
HIS 220 Assessment Plan Data

Course Outcome

Define and discuss the historical significance of key historical terms and concepts

AY 2017-2018

MEASURE 1:

90% of students will score 75% or above on an assessment on historical terms and concepts from the pre-contact, Spanish, and Mexican periods of Arizona's history.

MEASURE 1 TYPE:

Direct

MEASURE 1 RESULTS:

One online section was assessed. N=10. 90% (9/10) students participated. 88% (8/9) of the students participating in the assessment scored 75% or above.

MEASURE 2:

90% of students will score 75% or above on an assessment of key historical terms and concepts from the US period (territorial and statehood) of Arizona's history.

MEASURE 2 TYPE:

Direct

MEASURE 2 RESULTS:

One online section was assessed. N=10. 100% (10/10) of the students participated in the assessment. Of those participating, 90% (9/10) scored 75% or above on the exam.

FINDINGS

The target was met.

Overall, students demonstrated historical/critical thinking skills and their understanding of the key concepts from Arizona's history.

TARGET LEVEL

ACHIEVEMENT

Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

Further Action Unnecessary

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Overall students were highly engaged in the course and demonstrated their historical thinking skills.

The assessment indicated no deficiencies in student learning.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

None indicated.

1.

No changes recommended.

PERSON/ GROUP

Monica Ketchum
RESPONSIBLE FOR ACTION
TARGET DATE FOR IMPLEMENTATION OF THE ACTION
06/11/2018
PRIORITY
Low

Course Outcome
Identify and recall key information from a historical text and/or documentary film

AY 2017-2018

MEASURE 1:
90% of students assessed will score 85% or above on a response paper related to a historical text.

MEASURE 1 TYPE:
Direct

MEASURE 1 RESULTS:
One online section was assessed. N=10. 100% of students enrolled in the section participated in the assessment. 90% (9/10) scored 85% or above on the assessment.

MEASURE 2:
90% of students assessed will score 85% or above on a quiz related to a documentary film.

MEASURE 2 TYPE:
Direct

MEASURE 2 RESULTS:
One online section was assessed. N=10. 80% (8/10) of students enrolled in the class participated in the assessment. 100% (8/8) of those participating scored 85% or above on the assessment.

FINDINGS
The target was met for both measures, indicating that students were able to reflect on, and respond to both written and multiple-choice questions related to historical texts and documentaries.

TARGET LEVEL ACHIEVEMENT
Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.
Further Action Unnecessary

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Students were highly engaged in the class.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
None were displayed.

This was a winter class and two of the students were unable to complete assignments due to family obligations.

1.
Continue to ingrate similar assignments and assessments into history courses.

PERSON/ GROUP
Monica Ketchum
RESPONSIBLE FOR ACTION

TARGET DATE FOR IMPLEMENTATION OF THE ACTION 06/11/2018

PRIORITY Low
# HIS 230 Assessment Plan Data

## Course Outcome
Summarize research findings in an oral presentation to the class

## AY 2017-2018

### MEASURE 1:
90% of students will score 75% or above on a presentation to the class based on research into a topic related to women's activism in the 19th and 20th centuries.

**MEASURE 1 TYPE:** Direct

**MEASURE 1 RESULTS:**
One section was assessed on this measure. N=19. 95% (18/19) of the students enrolled in the class participated in the assessment. 100% (18/18) scored 75% or above on the assessment.

### MEASURE 2:
90% of students enrolled in the class for Honors credit will score 80% or above on a multi-modal presentation based on research into a pair of First Ladies of the United States.

**MEASURE 2 TYPE:** Direct

**MEASURE 2 RESULTS:**
One section was assessed on this measure. N=10. 100% (10/10) students participated in the assessment. 90% (9/10) scored 80% or above on the assessment.

## FINDINGS
The target was met for both measures.

## TARGET LEVEL ACHIEVEMENT
Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.*

Further Action Unnecessary

## WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Students demonstrated creativity when developing and presenting their projects. Most students were able to clearly communicate their ideas.

## WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Many presentations featured font that was too small and didn't have a good balance between images and text. Typos and grammatical errors were common.

### 1.
Although the target was met, a workshop on presentation tips would help students create better projects.

## PERSON/GROUP RESPONSIBLE FOR ACTION
Monica Ketchum
<table>
<thead>
<tr>
<th>TARGET DATE FOR IMPLEMENTATION OF THE ACTION</th>
<th>06/11/2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRIORITY</td>
<td>Low</td>
</tr>
</tbody>
</table>
# HIS 280 Assessment Plan Data

## Course Outcome

Define and discuss the historical significance of key historical terms and concepts

## AY 2017-2018

<table>
<thead>
<tr>
<th>MEASURE 1:</th>
<th>90% of students will score 75% or above on an assessment of the key historical concepts for precolonial Mexico.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TYPE:</td>
<td>Direct</td>
</tr>
<tr>
<td>RESULTS:</td>
<td>Two sections were assessed. N=38. 100% (38/38) of the students participated in the assessment. 87% (33/38) scored 75% or above on the assessment.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MEASURE 2:</th>
<th>90% of students will score 75% or above on an assessment of the key historical concepts for colonial Mexico.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TYPE:</td>
<td>Direct</td>
</tr>
<tr>
<td>RESULTS:</td>
<td>Three sections were assessed. N=61. 98% (60/61) of the students participated in the assessment. 63% (38/60) scored 75% or above on the assessment.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MEASURE 3:</th>
<th>90% of students will score 75% or above on an assessment of the key historical concepts about 19th century Mexico.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TYPE:</td>
<td>Direct</td>
</tr>
<tr>
<td>RESULTS:</td>
<td>Three sections were assessed. N=61. 98% (60/61) of the students participated in the assessment. 70% (42/60) scored 75% or above on the assessment.</td>
</tr>
</tbody>
</table>

## FINDINGS

The target was partially met. This is a required course for Social Work majors and is frequently taken by students due to their interest in the subject. Other assessments indicate that students understand and learn the material, however, many have never been exposed to historical documents and have limited historical thinking skills, resulting in poor or incomplete written responses.

## TARGET LEVEL ACHIEVEMENT

Partially Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.*

Further Action Planned

## WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Those students who met the target demonstrated an understanding of the material and historical/critical thinking skills.

## WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

This is a required course for Social Work majors and is frequently taken by students due to their interest in the subject. Other assessments indicate that students...
understand and learn the material, however, many have never been exposed to historical documents and have limited historical thinking skills, resulting in poor or incomplete written responses. Modeling and reinforcing expectations may help students meet the target.

1. Clarify expectations by creating a sample response for students to model when responding to the questions.

REVISE MEASUREMENT APPROACH
PERSON/ GROUP RESPONSIBLE FOR ACTION
Monica Ketchum
TARGET DATE FOR IMPLEMENTATION OF THE ACTION
06/11/2018
PRIORITY Low

Course Outcome
Summarize findings in an visual presentation to the class

AY 2017-2018

MEASURE 1:
90% of students will score 85% or above on a class presentation related to a historical figure from Mexico's past.

MEASURE 1 TYPE:
Direct

MEASURE 1 RESULTS:
Three sections (2 online, 1 face-to-face) participated in this assessment. N=61. 92% (56/61) students completed the assessment. Of those, 98% (55/56) scored 85% or above on the assessment.

FINDINGS
Overall, students met the target for this measure.

TARGET LEVEL ACHIEVEMENT
Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.
Further Action Unnecessary

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Students were creative in developing presentations.
Sharing research presentations engaged students in collaborative learning.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Formatting works cited pages within presentations was challenging. See recommendations.
Students were not as diligent in proofreading for grammar, capitalization, and punctuation on presentations as they are in traditional essays...they tend to be informal. This needs to be reinforced.
1. Although the target was met, a change was made to the assessment, requiring students to include a reflection on the research process and submit a works cited page separate from the presentation.

REVISE MEASUREMENT APPROACH

Implemented Changes

PERSON/ GROUP RESPONSIBLE FOR ACTION

Monica Ketchum

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

06/11/2018

PRIORITY

Low
MAT 121 Yang Assessment Plan Data

Course Outcome

Chapter 2: Identify, Solve, and find domains and ranges of functions.

AY 2017-2018

MEASURE 1:

Students are able to identify the domain and range of an absolute function in a graph.

Fall 2017 and spring 2018 final exam question 1:
Identify if the graph is a function, and identify the domain and range. Write the domain and range in interval notation.

Passing grade:
Strong understanding: 4 points out of 4.
Good understanding but made mistakes in calculation: 2~3 points out of 4.
Failing grade:
Did not understand but tried to write something: 1 point out of 4.
Did not answer the question: 0 point out of 4.

MEASURE 1 TYPE: Direct

MEASURE 1 RESULTS:

Fall 2017, thirty-two students took the final exam and 97% of students passed.
Spring 2018, thirty-four students took the final exam and 88% of students passed.

<table>
<thead>
<tr>
<th>2017-2018</th>
<th>Strong Understanding</th>
<th>Good Understanding</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2017 (32 students)</td>
<td>56%</td>
<td>41%</td>
<td>3%</td>
</tr>
<tr>
<td>Spring 2018 (34 students)</td>
<td>32%</td>
<td>56%</td>
<td>12%</td>
</tr>
</tbody>
</table>

MEASURE 2:

Students are able to solve the domain of a radical function symbolically.

Fall 2017 and Spring 2018 final exam question 2:
Find the domain of the function f(x) = square root of (9 - 5x), give your answer in set-builder notation.

Passing grade:
Strong understanding: 4 points out of 4.
Good understanding but made mistakes in calculation: 2~3 points out of 4.
Failing grade:
Did not understand but tried to write something: 1 point out of 4.
Did not answer the question: 0 point out of 4.

MEASURE 2 TYPE: Direct

MEASURE 2 RESULTS:

Fall 2017, thirty-two students took the final exam and 72% of students passed.
Spring 2018, thirty-four students took the final exam and 59% of students passed.

<table>
<thead>
<tr>
<th>2017-2018</th>
<th>Strong Understanding</th>
<th>Good Understanding</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2017 (32 students)</td>
<td>15%</td>
<td>57%</td>
<td>28%</td>
</tr>
</tbody>
</table>
FINDINGS

The Target Level Achievement (TLA) for student performances were met for Measure 1 and 2 except the Measure 2 in Spring 2018.

<table>
<thead>
<tr>
<th>Measures</th>
<th>Benchmark Success Rate</th>
<th>Actual Success Rate</th>
<th>TLA Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure 1-Fall 2017</td>
<td>70%</td>
<td>97% (31/32)</td>
<td>Yes</td>
</tr>
<tr>
<td>Measure 1-Sp 2018</td>
<td>70%</td>
<td>88% (30/34)</td>
<td>Yes</td>
</tr>
<tr>
<td>Measure 2-Fall 2017</td>
<td>70%</td>
<td>72% (23/34)</td>
<td>Yes</td>
</tr>
<tr>
<td>Measure 2-Sp 2018</td>
<td>70%</td>
<td>59% (20/34)</td>
<td>No</td>
</tr>
</tbody>
</table>

TARGET LEVEL ACHIEVEMENT

Partially Met

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Overall, the instructor is satisfied with the Target Level Achievement student performance for Measure 1.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

1. Students continue struggled with finding domain in a radical function for Measure 2.
2. Students were able to solve the domain for Measure 2 either with strong or poor knowledge.

In lecture continue work more problems to solve domain symbolical method.

Course Outcome

Chapter 3: Solving absolute value equations and inequalities in one variable.

AY 2017-2018

MEASURE 1:

Students are able to solve an absolute value inequality.
Fall 2017 and Spring 2018 final exam question 3:
Solve the absolute value inequality \(|2x - 1| \leq 5\). Graph the solution on the number line and write the solution in interval notation.

Passing grade:
Strong understanding: 4 points out of 4.
Good understanding but made mistakes in calculation: 2~3 points out of 4.
Failing grade:
Did not understand but tried to write something: 1 point out of 4.
Did not answer the question: 0 point out of 4.

MEASURE 1 TYPE:

Direct

MEASURE 1 RESULTS:

Fall 2017, thirty-two students took the final exam and 97% of students passed.
Spring 2018, thirty-four students took the final exam and 79% of students passed.
FINDINGS

The Target Level Achievement (TLA) for student performances were met.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Benchmark Success Rate</th>
<th>Actual Success Rate</th>
<th>TLA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2017</td>
<td>70%</td>
<td>97% (31/32)</td>
<td>Yes</td>
</tr>
<tr>
<td>Spring 2018</td>
<td>70%</td>
<td>79% (27/34)</td>
<td>Yes</td>
</tr>
</tbody>
</table>

TARGET LEVEL ACHIEVEMENT

Met

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Overall, the instructor is satisfied with the Target Level Achievement student performance for Fall 2017.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

1. Spring 2018, some students did not consider a negative key for the solutions, 2x-1 >= -5.
2. The instructor believes that there is possible for improvement to meet a high expectation of the student performance.

In lecture continue to work with students for conceptual of absolute value inequalities and a number line.

Course Outcome

Chapter 4: Solving applications involving linear systems.

AY 2017-2018

MEASURE 1:

Students are able to find the average rate of change and predict the consumption in 2018.

Fall 2017 and Spring 2018, final exam question 4:

In 2007, the average American ate 74 pounds of chicken, and in 2015, this amount increased to 90 pounds. (a). Find the average rate of change from 2007 to 2015. (b). Estimate chicken consumption in 2018.

Passing grade:
Strong understanding: 4 points out of 4.
Good understanding but made mistakes in calculation: 2-3 points out of 4.
Failing grade:
Did not understand but tried to write something: 1 point out of 4.
Did not answer the question: 0 point out of 4.

MEASURE 1 TYPE:

Direct

MEASURE 1 RESULTS:

Fall 2017, thirty-two students took the final exam and 94% of students passed.
Spring 2018, thirty-four students took the final exam and 79% of students passed.
### MEASURE 2:

Students are able to solve a college tuition problem involving two variables. Fall 2017 and spring 2018, final exam question 5:

A student takes 12 credits of day classes and 6 credits of night classes. A credit for day classes costs $30 more than a credit for night classes. If the student's total tuition is $1,800, how much does each type of credit cost?

**Passing grade:**
- Strong understanding: 4 points out of 4.
- Good understanding but made mistakes in calculation: 2~3 points out of 4.

**Failing grade:**
- Did not understand but tried to write something: 1 point out of 4.
- Did not answer the question: 0 point out of 4.

### MEASURE 2 TYPE:

Direct

### MEASURE 2 RESULTS:

Fall 2017, thirty-two students took the final exam and 47% of students passed. Spring 2018, thirty-four students took the final exam and only 26% of students passed.

<table>
<thead>
<tr>
<th></th>
<th>Fall 2017 (32 students)</th>
<th>Spring 2018 (34 students)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong Understanding</td>
<td>31%</td>
<td>9%</td>
</tr>
<tr>
<td>Good Understanding</td>
<td>16%</td>
<td>17%</td>
</tr>
<tr>
<td>Fail</td>
<td>53%</td>
<td>74%</td>
</tr>
</tbody>
</table>

### FINDINGS

The Target Level Achievement (TLA) for student performances were met for Measure 1 but not met for Measure 2.

<table>
<thead>
<tr>
<th>Measures</th>
<th>Benchmark Success Rate</th>
<th>Actual Success Rate</th>
<th>TLA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure 1-Fall 2017</td>
<td>70%</td>
<td>94% (30/32)</td>
<td>Yes</td>
</tr>
<tr>
<td>Measure 1-Spring 2018</td>
<td>70%</td>
<td>79% (27/34)</td>
<td>Yes</td>
</tr>
<tr>
<td>Measure 2-Fall 2017</td>
<td>70%</td>
<td>47% (15/32)</td>
<td>No</td>
</tr>
<tr>
<td>Measure 2-Spring 2018</td>
<td>70%</td>
<td>26% (9/34)</td>
<td>No</td>
</tr>
</tbody>
</table>

### TARGET LEVEL ACHIEVEMENT

Partially Met

### WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

1. Overall, the instructor is satisfied with the Target Level Achievement student performance for Measure 1.
2. Each measure challenged students' understanding of the real world problem that related to the chicken consumption and college tuition.

### WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

1. The instructor believes that there is always room for challenge students that related to either hard problem or conceptual of the student's college career.
2. Students continue struggled with translating English phrases into Algebra expressions.

1. In lecture continue to work more translating word problems.
2. The instructor continues to encourage students to visit the Tutoring Center for English and Mathematics.

**IMPLEMENT ADDITIONAL TRAINING**

**Planned Changes**

Continue to work with tutors and provide students more bonus points for visiting the Tutoring Center.

**Course Outcome**

Chapter 5: Factoring polynomials.

**AY 2017-2018**

**MEASURE 1:**

Students are able to factor polynomials by grouping.

Fall 2017 and Spring 2018 final exam question 6:

*Factor the following polynomial. \( n^3 - 10n^2 - 4n + 40 \).*

Passing grade:
- Strong understanding: 4 points out of 4.
- Good understanding but made mistakes in calculation: 2–3 points out of 4.
- Failing grade:
  - Did not understand but tried to write something: 1 point out of 4.
  - Did not answer the question: 0 point out of 4.

**MEASURE 1 TYPE:**

Direct

**MEASURE 1 RESULTS:**

Fall 2017, thirty-two students took the final exam and 72% of passed.

Spring 2018, thirty-four students took the final exam and 79% of students passed.

<table>
<thead>
<tr>
<th></th>
<th>2017-2018</th>
<th>Strong Understanding</th>
<th>Good Understanding</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2017</td>
<td>31%</td>
<td>41%</td>
<td>28%</td>
<td></td>
</tr>
<tr>
<td>Spring 2018</td>
<td>62%</td>
<td>17%</td>
<td>21%</td>
<td></td>
</tr>
</tbody>
</table>

**FINDINGS**

The Target Level Achievement (TLA) for student performances were met for Fall 2017 and Spring 2018.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Benchmark Success Rate</th>
<th>Benchmark Success Rate</th>
<th>TLA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2017</td>
<td>70%</td>
<td>72%</td>
<td>Yes</td>
</tr>
<tr>
<td>Spring 2018</td>
<td>70%</td>
<td>79%</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**TARGET LEVEL ACHIEVEMENT**

Met

**WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

1. Overall, the instructor is mildly satisfied with the Target Level Achievement student performance for Measure 1.
2. Student performance in Spring 2018 is better than Fall 2017.

**WHAT WEAKNESSES WERE Evident Through the Assessments of Your Measures?**

Some students did not complete factoring the expression to the simplest form, for
In lecture continue to work with the special products of polynomials.

Course Outcome

Chapter 6: Performing operations on rational functions.

AY 2017-2018

MEASURE 1:

Students are able to solve the sum of two rational functions.
Fall 2017 and Spring 2018 final exam question 7:
Use \( f(x) = \frac{x}{x - 2} \) and \( g(x) = \frac{2x}{3x - 2} \) to evaluate \( (f + g)(-2) \).

Passing grade:
Strong understanding: 4 points out of 4.
Good understanding but made mistakes in calculation: 2~3 points out of 4.
Failing grade:
Did not understand but tried to write something: 1 point out of 4.
Did not answer the question: 0 point out of 4.

MEASURE 1 TYPE:
Direct

MEASURE 1 RESULTS:

<table>
<thead>
<tr>
<th></th>
<th>2017-2018</th>
<th>Strong Understanding</th>
<th>Good Understanding</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2017 (32 students)</td>
<td>Fall 2017 (32 students)</td>
<td>34%</td>
<td>47%</td>
<td>19%</td>
</tr>
<tr>
<td>Spring 2018 (34 students)</td>
<td>Spring 2018 (34 students)</td>
<td>32%</td>
<td>53%</td>
<td>15%</td>
</tr>
</tbody>
</table>

FINDINGS

The Target Level Achievement (TLA) for student performances were met for Fall 2017 and Spring 2018.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Benchmark Success Rate</th>
<th>Actual Success Rate</th>
<th>TLA</th>
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<tbody>
<tr>
<td>Fall 2017</td>
<td>70%</td>
<td>81% (26/32)</td>
<td>Yes</td>
</tr>
<tr>
<td>Spring 2018</td>
<td>70%</td>
<td>85% (29/34)</td>
<td>Yes</td>
</tr>
</tbody>
</table>

TARGET LEVEL ACHIEVEMENT

Met

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Overall, the instructor is satisfied with the Target Level Achievement student performance for Fall 2017 and Spring 2018.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Few students continue struggled with the function operations.
**Course Outcome**

Chapter 7: Simplifying radical expressions: Applying properties of rational exponents.

**AY 2017-2018**

**MEASURE 1:**

Students are able to simply a rational expression with a negative exponent. Fall 2017 and Spring 2018 final exam question 8:

*Use properties of exponents to simplify the expression. \((x^{2/81})^{-1/2}\).*

Passing grade:
- Strong understanding: 4 points out of 4.
- Good understanding but made mistakes in calculation: 2~3 points out of 4.

Failing grade:
- Did not understand but tried to write something: 1 point out of 4.
- Did not answer the question: 0 point out of 4.

**MEASURE 1 TYPE:**

Direct

**MEASURE 1 RESULTS:**

Fall 2017, thirty-two students took the final exam and 81% of students passed. Spring 2018, thirty-four students took the final exam and 79% of students passed.

<table>
<thead>
<tr>
<th>2017-2018</th>
<th>Strong Understanding</th>
<th>Good Understanding</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2017 (32 students)</td>
<td>28%</td>
<td>53%</td>
<td>19%</td>
</tr>
<tr>
<td>Spring 2018 (34 students)</td>
<td>47%</td>
<td>32%</td>
<td>21%</td>
</tr>
</tbody>
</table>

**FINDINGS**

The Target Level Achievement (TLA) for student performances were met for Fall 2017 and Spring 2018.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Benchmark Success Rate</th>
<th>Actual Success Rate</th>
<th>TLA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2017</td>
<td>70%</td>
<td>81% (26/32)</td>
<td>Yes</td>
</tr>
<tr>
<td>Spring 2018</td>
<td>70%</td>
<td>79% (27/34)</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**TARGET LEVEL ACHIEVEMENT**

Met

**WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

Overall, the instructor is satisfied with the Target Level Achievement student performance for Fall 2017 and Spring 2018. The

1. A rational expression and a negative exponent are always challenged students' understanding of the key ideas associated with the simplify form.

2. Students continue struggled with a negative exponent.

**WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

In lecture continue to practice with fraction, radical expressions, positive and negative
**Course Outcome**

Chapter 8: Finding real and complex roots of quadratic equations.

**AY 2017-2018**

**MEASURE 1:**

Students are able to solve the quadratic equation by any method.

Fall 2017 and Spring 2018 final exam question 9:

*Solve the equation* \( x^2 + 6x + 10 = 0 \) *by any method.*

Passing grade:
- Strong understanding: 4 points out of 4.
- Good understanding but made mistakes in calculation: 2~3 points out of 4.

Failing grade:
- Did not understand but tried to write something: 1 point out of 4.
- Did not answer the question: 0 point out of 4.

**MEASURE 1 TYPE:** Direct

**MEASURE 1 RESULTS:**

Fall 2017, thirty-two students took the final exam and 78% of students passed.

Spring 2018, thirty-four students took the final exam and 65% of students passed.

<table>
<thead>
<tr>
<th></th>
<th>2017-2018</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Strong Understanding</td>
<td>Good Understanding</td>
<td>Fail</td>
</tr>
<tr>
<td>Fall 2017 (32 students)</td>
<td>22%</td>
<td>56%</td>
<td>22%</td>
<td></td>
</tr>
<tr>
<td>Spring 2018 (34 students)</td>
<td>47%</td>
<td>18%</td>
<td>35%</td>
<td></td>
</tr>
</tbody>
</table>

**FINDINGS**

Fall 2017, 25 out of 32 students used the quadratic formula to solve for this problem and 7 students solved it completed correct. One student used the completing the square to solve the problem correctly. Three students used factoring but could not solve for it.

Spring 2018, 16 out of 34 students solved the problem correct and 11 students did not understand either the quadratic formula or completing the square.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Benchmark Success Rate</th>
<th>Actual Success Rate</th>
<th>TLA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2017</td>
<td>70%</td>
<td>78% (25/32)</td>
<td>Yes</td>
</tr>
<tr>
<td>Spring 2018</td>
<td>70%</td>
<td>65% (22/34)</td>
<td>No</td>
</tr>
</tbody>
</table>

**TARGET LEVEL ACHIEVEMENT**

Partially Met

**WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

1. Students understood how to solve for this quadratic equations. They knew the step by step to simply the quadratic formula.

2. The quadratic formula is a key idea to solve for the quadratic equation easily with the complex number solutions.

**WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

1. Common mistakes were made at the end of two solutions: either missing one solution or without the complex number with \( i \).
<table>
<thead>
<tr>
<th>ASSESSMENTS OF YOUR MEASURES?</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. The instructor believes that there is always room for improvement of the student performance.</td>
</tr>
<tr>
<td>1. Students are not familiar with the complex numbers. the instructor recommends that students need more practices in the completing the square and the quadratic equations with the imaginary numbers solutions.</td>
</tr>
</tbody>
</table>
MAT 151 Yang Assessment Plan Data

Course Outcome

Students will be able to demonstrate a fundamental understanding of exponential and logarithmic functions that connect to real world problems.

AY 2017-2018

MEASURE 1:

Upon satisfactory completion of the course in Spring 2018, students are expected to pass with 70% or higher. The problem in final exam question 2:

A colony of bacteria that grows according to the law of uninhibited growth is modeled by the function \( N(t) = 100 e^{0.045t} \), where \( N \) is measured in grams and \( t \) is measured in days.

(a). What is the population after 4 days.

Chapter’s exam: used a compounded interest problem.

Passing grade:
Strong understanding: 4 points out of 4.
Good Understanding but made mistakes in calculation: 2~3 points out of 4.
Failing grade:
Did not understand but tried to write something: 1 point out of 4.
Did not answer the question: 0 point out of 4.

MEASURE 1 TYPE: Direct

MEASURE 1 RESULTS:

Find the bacteria population after 4 days:

<table>
<thead>
<tr>
<th></th>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter’s Exam (March)-40 students</td>
<td>62.5%</td>
<td>37.5%</td>
</tr>
<tr>
<td>Final Exam (May)-40 students</td>
<td>75.0%</td>
<td>25.0%</td>
</tr>
</tbody>
</table>

MEASURE 2:

A colony of bacteria that grows according to the law of uninhibited growth is modeled by the function \( N(t) = 100 e^{0.045t} \), where \( N \) is measured in grams and \( t \) is measured in days.

(b). What is the doubling time for the population?.

Chapter’s exam: used a compounded interest problem.

Passing grade:
Strong understanding: 4 points out of 4.
Good Understanding but made mistakes in calculation: 2~3 points out of 4.
Failing grade:
Did not understand but tried to write something: 1 point out of 4.
Did not answer the question: 0 point out of 4.

MEASURE 2 TYPE: Direct

MEASURE 2 RESULTS:

Find the doubling time for the bacteria population:
### Spring 2018

**Pass** | **Fail**
---|---
Chapter's Exam (March)-40 students | 25% | 75%
Final Exam (May)-40 students | 60% | 40%

### FINDINGS

<table>
<thead>
<tr>
<th>Measures</th>
<th>Benchmark Success Rate</th>
<th>Actual Success Rate</th>
<th>TLA Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure 1 Chapter's Exam</td>
<td>70%</td>
<td>62.5% (25/40)</td>
<td>No</td>
</tr>
<tr>
<td>Measure 1 Final Exam</td>
<td>70%</td>
<td>75% (30/40)</td>
<td>Yes</td>
</tr>
<tr>
<td>Measure 2 Chapter's Exam</td>
<td>70%</td>
<td>25% (10/40)</td>
<td>No</td>
</tr>
<tr>
<td>Measure 2 Final Exam</td>
<td>70%</td>
<td>60% (24/40)</td>
<td>No</td>
</tr>
</tbody>
</table>

### TARGET LEVEL ACHIEVEMENT

Partially Met

### WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

1. At the end of semester, student performance met the Target Level Achievement (TLA) for Measure 1.
2. Measures 1 and 2 are conceptual in mathematics and technology skill, meaning that students can use a graphical calculator to answer the questions with the formulas.

### WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

1. The problems involve the exponential and natural logarithmic functions that students struggle with arithmetic process.
2. Students can not find the exact answer without a graphical calculator.
3. The doubling time in Measure 2, students had difficult time to solve the problem if they did not use a formula.

### MAKE TECHNOLOGY RELATED IMPROVEMENTS

Planned Changes

### TARGET DATE FOR IMPLEMENTATION OF THE ACTION

09/30/2018

### PRIORITY

Low

### Course Outcome

Students will be able to investigate linear functions and use them to model real world data.

### AY 2017-2018

**MEASURE 1:**

Upon satisfactory completion of the course in Spring 2018, students are expected to pass with 70% or higher. The problem in final exam question 1:

*Data on total U.S. expenditures on pets, pet products, and related services are given*
in a table.

<table>
<thead>
<tr>
<th>Year, x</th>
<th>Total U.S. Expenditures on Pets (in billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991, 0</td>
<td>$19.6</td>
</tr>
<tr>
<td>1994, 3</td>
<td>$24.9</td>
</tr>
<tr>
<td>1997, 6</td>
<td>$32.5</td>
</tr>
<tr>
<td>2000, 9</td>
<td>$39.7</td>
</tr>
<tr>
<td>2003, 12</td>
<td>$46.8</td>
</tr>
<tr>
<td>2006, 15</td>
<td>$56.9</td>
</tr>
<tr>
<td>2009, 18</td>
<td>$67.1</td>
</tr>
</tbody>
</table>

(a). Use a calculator to model the data with a linear function.

Chapter’s exam: used the data set on average credit-card debt per U.S. household.

Passing grade:
Strong understanding: 4 points out of 4.
Good Understanding but made mistakes in calculation: 2~3 points out of 4.
Failing grade:
Did not understand but tried to write something: 1 point out of 4.
Did not answer the question: 0 point out of 4.

MEASURE 1 TYPE: Direct

MEASURE 1 RESULTS:

Model the data with a linear function:

<table>
<thead>
<tr>
<th>Spring 2018</th>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter's Exam (February)-40 students</td>
<td>32.5%</td>
<td>67.5%</td>
</tr>
<tr>
<td>Final Exam (May)-40 students</td>
<td>62.5%</td>
<td>37.5%</td>
</tr>
</tbody>
</table>

MEASURE 2:

Upon satisfactory completion of the course in Spring 2018, students are expected to pass with 70% or higher. The problem in final exam question 1:

Data on total U.S. expenditures on pets, pet products, and related services are given in a table (Continue Measure question).


Chapter’s exam: used the data set on average credit-card debt per U.S. household.

Passing grade:
Strong understanding: 4 points out of 4.
Good Understanding but made mistakes in calculation: 2~3 points out of 4.
Failing grade:
Did not understand but tried to write something: 1 point out of 4.
Did not answer the question: 0 point out of 4.

MEASURE 2 TYPE: Direct

MEASURE 2 RESULTS:

Predict the data on pets in 2017:

<table>
<thead>
<tr>
<th>Spring 2018</th>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter's Exam (February)-40 students</td>
<td>22.5%</td>
<td>77.5%</td>
</tr>
<tr>
<td>Final Exam (May)-40 students</td>
<td>40.0%</td>
<td>60.0%</td>
</tr>
</tbody>
</table>

FINDINGS

The Target Level Achievement (TLA) for student performance was not met for either
Measure 1 or 2. But the student performance was improved from very low rates to 62.5% for Measure 1 and 40% for Measure 2.

<table>
<thead>
<tr>
<th>Measures</th>
<th>Benchmark Success Rate</th>
<th>Actual Success Rate</th>
<th>TLA Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure 1 Chapter's Exam</td>
<td>70%</td>
<td>32.5% (13/40)</td>
<td>No</td>
</tr>
<tr>
<td>Measure 1 Final Exam</td>
<td>70%</td>
<td>62.5% (25/40)</td>
<td>No</td>
</tr>
<tr>
<td>Measure 2 Chapter's Exam</td>
<td>70%</td>
<td>22.5% (9/40)</td>
<td>No</td>
</tr>
<tr>
<td>Measure 2 Final Exam</td>
<td>70%</td>
<td>40.0% (16/40)</td>
<td>No</td>
</tr>
</tbody>
</table>

TARGET LEVEL ACHIEVEMENT

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Overall, the instructor is slightly dissatisfied with the Target Level Achievement for student performance but is happy for students' improvement.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

The instructor believes that there is always room for improvement whether it is related to a technology tool (a graphing calculator TI-84), student practice, or teacher strategies. The instructor noticed that a number of students did not have a graphing calculator.

1. Most of students did not use a graphing calculator TI-84 before. Provide more times for students to practice the calculator inside or outside classroom.

2. Practice more technology skills in lecture.

3. Support each student with a graphical calculator because many students were unable to afford it. Students can rent a graphical calculator but these is a limited numbers of calculator for rent at San Luis Learning Center.

OTHER

Change a question that can be solved by arithmetic math without a graphical calculator.

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

12/01/2018

PRIORITY

Low

Course Outcome

Student will be able to demonstrate an understanding of the systems of three linear equations and use them to real world problems.

AY 2017-2018
MEASURE 1: Upon satisfactory completion of the course in Spring 2018, students are expected to pass with 70% or higher. The problem in final exam question 4:

The top three apple growers in the world – China, the United States, and Turkey – grew a total of about 74 billion lbs of apples in a recent year. China produced 44 billion lbs more than the combined production of the United States and Turkey. The United States produced twice as many pounds of apples as Turkey (Source: U.S. Apple Association). Find the number of pounds of apples produced by each country.

Chapter’s exam: used the same problem but changed from 44 billion to 38 billion.

Passing grade:
Strong understanding: 4 points out of 4.
Good Understanding but made mistakes in calculation: 2~3 points out of 4.
Failing grade:
Did not understand but tried to write something: 1 point out of 4.
Did not answer the question: 0 point out of 4.

MEASURE 1 TYPE: Direct

MEASURE 1 RESULTS:

This measure challenged students’ understanding of the word problem and the systems of three linear equations,

<table>
<thead>
<tr>
<th>Spring 2018</th>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter's Exam (April)-40 students</td>
<td>37.5%</td>
<td>62.5%</td>
</tr>
<tr>
<td>Final Exam (May)-40 students</td>
<td>45.0%</td>
<td>55.0%</td>
</tr>
</tbody>
</table>

FINDINGS

Benchmark and Actual success rates for the Measure 1 were found in the table below. The Target Level Achievement (TLA) was not met.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Benchmark Success Rate</th>
<th>Actual Success Rate</th>
<th>TLA Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter's Exam</td>
<td>70%</td>
<td>37.5% (15/40)</td>
<td>No</td>
</tr>
<tr>
<td>Final Exam</td>
<td>70%</td>
<td>45.0% (18/40)</td>
<td>No</td>
</tr>
</tbody>
</table>

TARGET LEVEL ACHIEVEMENT

Not Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

1. Overall, the instructor is mildly dissatisfied with the Target Level Achievement for student performance.
2. The real world problem challenged student's understanding of the systems of equations that involved three variables.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

1. Students struggled with set up the three linear equations, many students were only able to write the first equation, \( x + y + z = 74 \).
2. Students continue struggled with solving the systems of three equations either using substitution method or elimination method.
3. Student's mathematics education background is weak.

Note: The instructor was unexpected the very low success rate for Measure 1 because this real word problem has been practiced more than 4 times in classes.
1. Continue emphasizing in lecture the conceptual systems of three equations.

2. In lecture continue to work more examples that using substitution and elimination methods to solve for the systems of three linear equations.

IMPLEMENT ADDITIONAL TRAINING

DESCRIBE CHANGES

1. Take home assignments will be given to students to practice more real word problems.
2. Add quiz in lecture every week.

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

11/05/2018

PRIORITY

Medium
MAT 183 Assessment Plan Data

Course Outcome
2.1.1 determine the six trigonometric functions of an acute angle, given at least two sides of a right triangle.

AY 2017-2018

Course Outcome
2.2 determine the value of trigonometric functions of general angles.

AY 2017-2018

MEASURE 1:
Given an angle in any quadrant, the student will be able to compute all trigonometric ratios with the correct sign. The target success level is 70%.

MEASURE 1 TYPE:
Direct

EVIDENCE ATTACHMENTS:
Book183.xlsx

FINDINGS
It was determined that 13 out of 18 students who took the assessment were able to compute the trig ratios for an angle in quadrant II with given legs.

TARGET LEVEL ACHIEVEMENT
Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Determining the length of the hypotenuse using the Pythagorean Theorem and applying the definition of the trig ratios were the strong points of the solutions presented.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Students had problems applying the acronym Add Sugar To Coffee. Four students failed to realize that only the sine (from Sugar) would be positive in quadrant II.

1. Although the objective was met, more practice is needed with the signs of the ratios. Another mnemonic to use would be All Students Take Calculus.
<table>
<thead>
<tr>
<th><strong>Restructure Outcome Statement</strong></th>
<th>Implemented Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revise Measurement Approach</strong></td>
<td>Implemented Changes</td>
</tr>
<tr>
<td><strong>Collect and Analyze Additional Data and Information</strong></td>
<td>Implemented Changes</td>
</tr>
<tr>
<td><strong>Change Methods of Data Collection</strong></td>
<td>Implemented Changes</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>no changes</td>
</tr>
<tr>
<td><strong>Revamp Services</strong></td>
<td>Implemented Changes</td>
</tr>
<tr>
<td><strong>Make Technology Related Improvements</strong></td>
<td>Implemented Changes</td>
</tr>
<tr>
<td><strong>Make Personnel Related Changes</strong></td>
<td>Implemented Changes</td>
</tr>
<tr>
<td><strong>Implement Additional Training</strong></td>
<td>Implemented Changes</td>
</tr>
<tr>
<td><strong>Delete Service(s) or Program(s)</strong></td>
<td>Implemented Changes</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>recommend use of mnemonics and diagrams for trig signs</td>
</tr>
<tr>
<td><strong>Person/Group Responsible for Action</strong></td>
<td>math department</td>
</tr>
<tr>
<td><strong>Target Date for Implementation of the Action</strong></td>
<td>05/18/2018</td>
</tr>
<tr>
<td><strong>Priority</strong></td>
<td>Medium</td>
</tr>
</tbody>
</table>
MAT 270 - Rita Assessment Plan Data

Course Outcome

Appraise the importance of random variables and random sampling when obtaining samples for statistical inference.

AY 2017-2018

MEASURE 1:

On Test One, 70% of the students will be able to define and interpret random sampling correctly with a score of 70% or higher.

T1#2. (4 pts) For a sample to be a simple random sample, what is required of every possible sample or of every member of the population?

T1#7. (9 pts) Administrators at Texas A&M University were interested in estimating the percentage of students who are the first in their family to go to college. The A&M student body has about 46,000 members. For each scenario, identify the kind of sample used by the university administrators as simple random sample, stratified sample, systematic sample, cluster sample, or convenience sample.

- a. Select several dormitories at random and contact everyone living in the selected dorms.
- b. Using a computer-based alphabetical list of registered students, select a random sample of 800 of the students from the list.
- c. Using a computer-based list of registered students, contact 200 freshmen, 200 sophomores, 200 juniors, and 200 seniors selected at random from each class.

MEASURE 1 TYPE:

Direct

MEASURE 1 RESULTS:

T1#2 88.0% passed this question with a C or better
T1#7a 92.0% passed this question with a C or better
T1#7b 88.0% passed this question with a C or better
T1#7c 96.0% passed this question with a C or better

The only question addressed last year was T1#2. 83.7% of my students passed this question with a C or better last year.

FINDINGS

"Random Sampling" is an important concept for the understanding of statistics and hypothesis tests. Students need to understand the definition and the reason this is such an important method for collecting samples. Now that I am using an open-source book and software in which I can change the content, I believe I really need to get more into why random sampling is important. None of our questions have ever really addressed that.

TARGET LEVEL ACHIEVEMENT

Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

Further Action Planned

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

The students seem to understand the definition and the methods of random sampling.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

The textbooks we have used so far don’t really challenge the students to answer the question about why random sampling is important.
1. I need to work in more about random assignment into the book, homework, and quizzes this summer to ask better questions about this objective.

---

**Course Outcome**

Descriptively analyze a set of data.

---

**AY 2017-2018**

**MEASURE 1:**

On Test One and the Final Exam 70% of the students will be able to correctly analyze data by finding the mean, the standard deviation, the quartiles, the median, the IQR, and outliers with a score of 70% or higher.

**Mean and Standard Deviation**

T1#8. (6 pts) Find the standard deviation of the sample 1, 9, 6, 5, 8, 1 by hand – show your work. Round the standard deviation to two decimal places.

**Five-Number Summary/Outliers**

T1#12. (10 pts) Calculate the five-number summary for the following dataset. Are there any outliers? Show ALL the work you have to do to test for an outlier. Draw a modified boxplot from the data. 9, 20, 26, 28, 30, 31, 33, 35, 36, 36, 36, 39, 42, 43, 44, 44, 45, 51, 51, 52, 53, 56

**MEASURE 1 TYPE:** Direct

**MEASURE 1 RESULTS:**

Mean and Standard Deviation

T1#8 82% passed this question with a C or better

Last year 93.3% of my students passed this question with a C or better

Five-Number Summary/Outliers/Boxplot

T1#12 86% passed this question with a C or better

Last year 76.0% of my students passed this question with a C or better

**MEASURE 2:**

On Test One, 70% of the students will be able to correctly distinguish between qualitative and quantitative data with a score of 70% or higher.

**Qualitative**

T1#17. (3 pts) (Qualitative or Quantitative) The ethnicity of the individual respondents in a political poll of a randomly selected group of adults is an example of what type of variable?

**Quantitative**

T1#5. (3 pts) (Qualitative or Quantitative) The predicted gas mileage of the top selling mini-vans for each U. S. car manufacturer is an example of what type of variable?

**MEASURE 2 TYPE:** Direct

**MEASURE 2 RESULTS:**

Qualitative

T1#17 98% passed this question with a C or better

Last year 96.7% of my students passed this question with a C or better

Quantitative

T1#5 92% passed this question with a C or better

Last year 93.4% of my students passed this question with a C or better

**MEASURE 3:**

On Test One, 70% of the students will be able to correctly create the correct histogram or bar graph from a frequency table with a score of 70% or higher.

T1#11. (3 pts) The table gives information on college majors decided upon by 80 new freshmen at a college. Sketch an appropriate graph of the distribution.

<table>
<thead>
<tr>
<th>Major</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
MEASURE 3 RESULTS:
T1#11 90% passed this question with a C or better.
Last year 90.9% of my students passed this question with a C or better.

MEASURE 4:
On Test One, 70% of the students will be able to correctly organize given data into a frequency distribution and ogive graph with a score of 70% or higher.

T1#19. (12 pts) Create a frequency distribution, relative frequency distribution, and cumulative frequency distribution using 5 classes in the chart below. Then create an ogive. Be sure to show how you found your class limits. Give three decimal places for relative frequency.

<table>
<thead>
<tr>
<th>Class</th>
<th>Class limit</th>
<th>Frequency</th>
<th>Relative frequency</th>
<th>Cumulative frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>89</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>16</td>
<td>26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>37</td>
<td>49</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>72</td>
<td>72</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>81</td>
<td>103</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>130</td>
<td>163</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

MEASURE 4 RESULTS:
T1#19 86% passed this question with a C or better. This is new material to the new book so wasn't tested previously.

MEASURE 5:
On Test Two, 70% of the students will be able to correctly analyze data by finding the mean and the standard deviation of a probability distribution with a score of 70% or higher.

T2#5. (10 pts) The 1938 U.S. Census found the chance of a household being a certain size. The data is in the table. Find the mean and standard deviation of the probability distribution. Round decimals with more places than two to 3 places.

<table>
<thead>
<tr>
<th>Size of household</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probability</td>
<td>0.06</td>
<td>0.08</td>
<td>0.09</td>
<td>0.12</td>
<td>0.27</td>
<td>0.21</td>
<td>0.17</td>
</tr>
</tbody>
</table>

MEASURE 5 RESULTS:
T2#5 78.1% passed this question with a C or better. This is new material to the new book so wasn't tested previously.

EVIDENCE ATTACHMENTS: Assessment Spr18.xlsx

FINDINGS
Descriptive statistics is defined as statistical procedures used to summarize, organize, and simplify the data. This is the method of descriptively analyzing the data. Statisticians need to
collect data from samples and be able to organize it into understandable material for use in statistical inference. The student needs to be able to put the data in order, find the mean, median, standard deviation, quartiles, and graph the data.

My students did very well finding the mean and standard deviation by hand to receive a C or better but not as well as last year. On finding the five-number summary, outliers, and the boxplot my students did 10% better than last year. Identifying qualitative and quantitative data requirements were met quite well again this year. Ability to decide on the appropriate graph for qualitative data was about equal with previous years. My students this semester were able to create a frequency distribution (including class limits, relative frequencies, and cumulative frequencies) which is new to this book quite well. They did not do as well on the probability distribution.

TARGET LEVEL ACHIEVEMENT
*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

Further Action Planned

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Almost all areas showed improvement this year as compared with my classes last year.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

All the goals for these measures were accomplished with the new textbook. I believe I need to expand the number of test questions for which I gather data. I mostly recorded scores from questions which were similar to previous years for comparison, but I need to expand for this new textbook.

1.

Last year, I believed that more concentration was needed on the understanding of the boxplot and how it is constructed but this new textbook allowed for better understanding. I think that is because this textbook puts more stress on assistance from the calculator so the students are more motivated. Not so much needs to be memorized.

Course Outcome
Draw conclusions based on hypothesis testing theory.

AY 2017-2018

MEASURE 1:
On Test Three and the Final Exam, 70% of the students will be able to perform parametric hypothesis tests of means on independent samples, paired samples, and ANOVA with a score of 70% or higher.

Independent Samples
T3#3. (15 pts) Using data from a national health survey, researchers looked at the pulse rate for 754 randomly sampled people to see whether it is plausible that men and women have different mean pulse rates. The mean pulse rate for the 359 women was 75.4 with a standard deviation of 13.5. The mean pulse rate for the 395 men was 71.4 with a standard deviation of 12.8. Test that men and women have significantly different mean pulse rates with a 0.05 significance level.

Final #9. (17 pts) A researcher is interested in comparing the amount of time spent watching television by women and by women. A random sample of 34 women watched a mean of 12.3 hours in the previous week with a standard deviation of 3.9 hours. A random sample of 31 men watched a mean of 13.5 hours in the previous week with a standard deviation of 5.2 hours. Test at 5% significance to see if women and men watch different amounts of television per week.

Paired Samples
T3#1. (14 pts) A random sample of male students at a college reported what they believed to be their heights in centimeters. Then the students measured each other’s heights in centimeters, without shoes. Assume the population of difference scores is normally distributed. Use a significance level of 0.01 to test to see if their believed heights are larger than their measured heights.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>75.5</td>
<td>79</td>
</tr>
<tr>
<td>B</td>
<td>73</td>
<td>82</td>
</tr>
<tr>
<td>C</td>
<td>75.5</td>
<td>75</td>
</tr>
<tr>
<td>D</td>
<td>82</td>
<td>81</td>
</tr>
<tr>
<td>E</td>
<td>65.5</td>
<td>72</td>
</tr>
<tr>
<td>F</td>
<td>75</td>
<td>86</td>
</tr>
<tr>
<td>G</td>
<td>49</td>
<td>71.5</td>
</tr>
<tr>
<td>H</td>
<td>75</td>
<td>78</td>
</tr>
<tr>
<td>I</td>
<td>62.5</td>
<td>71.5</td>
</tr>
</tbody>
</table>

Final #6. (18 pts) Nine students took a math test before and after tutoring. Their scores are in the table. At the 1% significance level, did the test scores improve after the students went to tutoring?

ANOVA

T4#7. (26 pts) A psychologist would like to investigate the relative effectiveness of three therapeutic techniques for treating mild phobias. A sample of 15 individuals who demonstrate a moderate fear of spiders are randomly assigned to each of the three therapies. The data given below represent a measure of reported fear of spiders after therapy (higher numbers imply more fear). Do the different therapies produce different results? Test at $\alpha = 0.05$.

| Therapy A: | 15 | 12 | 9 | 15 | 8 |
| Therapy B: | 17 | 21 | 15 | 24 | 21 |
| Therapy C: | 17 | 23 | 24 | 19 | 18 |

MEASURE 1 TYPE:

Direct

MEASURE 1 RESULTS:

Independent Samples
T3#3 82.6% passed this question with a C or better
Final #9 95.9% passed this question with a C or better
The two questions together: 89.5% passed with a C or better
Last year 87.6% of my students passed this question with a C or better

Paired Samples
T3#1 67.4% passed this question with a C or better
Final #6 67.4% passed this question with a C or better
The two questions together: 67.4% passed with a C or better
Last year 76.1% of my students passed this question with a C or better

ANOVA

T4#7 70.2% passed this question with a C or better
Last year 74.9% of my students passed this question with a C or better

MEASURE 2:

On Test Four and the Final Exam, 70% of the students will be able to perform parametric hypothesis tests of proportions and nonparametric hypothesis tests on Chi-Squared, one-proportion, and two-proportion with a score of 70% or higher.

Chi-Squared

<table>
<thead>
<tr>
<th>Grade</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade Frequency</td>
<td>32</td>
<td>62</td>
<td>66</td>
<td>30</td>
<td>10</td>
</tr>
<tr>
<td>Proportion</td>
<td>0.13</td>
<td>0.26</td>
<td>0.33</td>
<td>0.19</td>
<td>0.09</td>
</tr>
<tr>
<td>Expected Counts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

T4#1. (18 pts) A professor in the psychology department would like to determine whether there has been a significant change in grading practices over the years. It is known that the overall grade distribution for the department in 2015 had 13% As, 26% Bs, 33% Cs, 19% Ds, and 9% Fs. A random sample of $n = 200$ psychology students from last semester produced the following grade distribution. Test at 5% that the grades of last semester’s students are in the same proportion as the grades of the students in 2015.
T4#3. (15 pts) Random samples of 60 men and 80 women were asked to pick which body image profile (from silhouettes or photos) they considered most attractive in the opposite sex. (For example, 29 of the women thought men look best if "somewhat thin"). Are gender and desired body image independent? Use $\alpha = 0.05$.

<table>
<thead>
<tr>
<th></th>
<th>Somewhat thin</th>
<th>Slightly thin</th>
<th>Slightly heavy</th>
<th>Somewhat heavy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Women</strong></td>
<td>29</td>
<td>25</td>
<td>18</td>
<td>8</td>
</tr>
<tr>
<td><strong>Men</strong></td>
<td>11</td>
<td>15</td>
<td>22</td>
<td>12</td>
</tr>
</tbody>
</table>

Final #8. Recent reports suggest that children who grow up with pets in the home tend to develop resistance to allergies. To test this phenomenon, a researcher interviews a random sample of 100 college students. Each student is asked about pets during childhood and about his or her current allergies. Test at 5% level of significance to see if growing up with pets and resistance to allergies are independent.

One-Proportion

T3#2. (15 pts) According to a reputable magazine, the dropout rate for all college students with loans is 30%. Suppose that 99 out of a sample of 300 college students with loans drop out. Use a significance level of 0.01 to test the hypothesis that the dropout rate for all college students with loans is greater than 30%.

Two-Proportion

T3#7. (19 pts) A vaccine to prevent a severe virus was given to children within the first year of life as part of a drug study. The study reported that of the 3428 children randomly assigned the vaccine, 70 got the virus. Of the 1762 children randomly assigned the placebo, 43 got the virus. Is the sample percentage different for the vaccine group than for the control group? Test to determine whether the vaccine is changes the chance of catching the virus.

Final #1. (21 pts) In 2008, a Pew Poll based on a random sample of 1100 people suggested that 49% of Americans approved of stem cell research. In 2015 a new poll of a different random sample of 1300 people found that 55% approved. Did American opinion of stem cell research change from 2008 to 2015? Test at a 5% level of significance.

Correlation

<table>
<thead>
<tr>
<th>Metacarpal</th>
<th>Height</th>
<th>Residuals</th>
</tr>
</thead>
<tbody>
<tr>
<td>45</td>
<td>171</td>
<td></td>
</tr>
<tr>
<td>51</td>
<td>178</td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>165</td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>163</td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>172</td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>183</td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>175</td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>173</td>
<td></td>
</tr>
</tbody>
</table>

T4#2. When an anthropologist finds skeletal remains, they need to figure out the height of the person. The length of their metacarpal bone one (in cm) and the height of a person (in cm) were collected and are in the table. A random sample of skeletal remains were measured for the table to the right. Test at the 1% level for a positive correlation between length of metacarpal bone one and height of a person. a. (1 pt) Name of Test. b. (2pts) State the random variables. e. (3 pts) State the null and alternative hypotheses and the level of significance. f. (4pts) State and check the assumptions for the hypothesis test. g. (3pts) Find the test statistic and p-value. Be sure to give the letter of the test statistic. h. (1pt) Conclusion. i. (2pts) Interpretation.
MEASURE 2 RESULTS:

Chi-Square
T4#1 83.0% passed this question with a C or better
T4#3 97.9% passed this question with a C or better
Final #6 94.0% passed this question with a C or better
The three questions together: 91.6% passed with a C or better
Last year 85.0% of my students passed this question with a C or better

One-Proportion
T4#5 78.3% passed this question with a C or better
Last year 78.5% of my students passed this question with a C or better

Two-Proportion
T3#7 76.3% passed this question with a C or better
Final #1 86.0% passed this question with a C or better
The two questions together: 81.1% passed with a C or better
Last year 89.2% of my students passed this question with a C or better

Correlation
T4#2 70.2% passed this question with a C or better
No Correlation hypothesis test in last textbook

FINDINGS

The hypothesis test is the most important learning objective of the entire class of introductory statistics. Everything learned in the first half of the semester is used to understand the process used for hypothesis testing in research. On the parametric hypothesis tests of means, Independent Samples and ANOVA stayed about the same as last year. But there was marked drop with Paired Samples because of the new textbook. On the parametric hypothesis tests of proportions, one-proportion tests stayed about the same as last year and two-proportion results decreased. On the nonparametric hypothesis tests, all of the Chi-Square test results improved some. The correlation test is new with this textbook. The students barely met the required score.

TARGET LEVEL ACHIEVEMENT

Met
Further Action Planned

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

At least 70% of the students received a passing score on all seven types of hypothesis test, so they did show understanding of this important concept.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Hypothesis tests are so very important in Statistics. I believe I need to shoot for higher than 70% passing.

1. I will continue to include more examples for them to practice of all the hypothesis tests so the scores come up on this whole assessment.

Course Outcome

Employ techniques of linear regression to model practical applications.

AY 2017-2018
MEASURE 1:

On Test Two and the final exam, 70% of the students will be able to find r, interpret a regression equation, and find a regression equation correctly with a score of 70% or higher.

<table>
<thead>
<tr>
<th>Metacarpal</th>
<th>Height</th>
<th>Residuals</th>
</tr>
</thead>
<tbody>
<tr>
<td>45</td>
<td>171</td>
<td></td>
</tr>
<tr>
<td>51</td>
<td>178</td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>165</td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>163</td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>172</td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>183</td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>175</td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>173</td>
<td></td>
</tr>
</tbody>
</table>

T4#2. (7 pts) When an anthropologist finds skeletal remains, they need to figure out the height of the person. The length of their metacarpal bone one (in cm) and the height of a person (in cm) were collected and are in the table. A random sample of skeletal remains were measured for the table to the right. Find the regression equation and write it here. Create a scatter plot of the data and draw it here. Fill in the table above with the information needed to find the residuals. Find the residuals graph and draw it here also.

MEASURE 1 TYPE:
Direct

MEASURE 1 RESULTS:
T4#2 78.7% passed this question with a C or better
We didn't find the scatterplot and residuals in the last textbook.

FINDINGS

This question is integral in the correlation hypothesis test. Regression is very important to statistics so students must understand regression and correlation. About 8 percent more passed with a C on the regression portion than the correlation portion of this problem because more time is being spent on the residuals, beings they are a more challenging issue.

TARGET LEVEL ACHIEVEMENT
Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
The students were able to compute the regression line and the residuals, and then plot the two graphs on the TI-84.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
There is still room for improvement.

1. Last year I struggled with whether to require students to find the regression equation by hand instead of with the calculator. I believe technology on this does not lead to less understanding so am glad for this more technological textbook. I believe more examples/homework problems will increase this result.

Course Outcome

Formulate and solve basic concepts of probability.

AY 2017-2018

MEASURE 1:

On Test Two, 70% of the students will be able to interpret probabilities from a two-way table
which include "Given That" and "AND" probabilities correctly with a score of 70% or higher.

T2#4 A random sample of car buyers was asked to respond to a survey about what was the most important quality of the car they purchased. This question is summarized in the table below. The important contributors were fuel efficiency, looks, manufacturer reputation, price, or other. Show your work. Leave answer as a reduced fraction or round to three decimal places.

<table>
<thead>
<tr>
<th></th>
<th>Fuel Efficiency</th>
<th>Looks</th>
<th>Manufacturer Reputation</th>
<th>Price</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>35</td>
<td>21</td>
<td>21</td>
<td>28</td>
<td>16</td>
<td>121</td>
</tr>
<tr>
<td>Female</td>
<td>42</td>
<td>25</td>
<td>27</td>
<td>41</td>
<td>14</td>
<td>149</td>
</tr>
<tr>
<td>Total</td>
<td>77</td>
<td>46</td>
<td>48</td>
<td>69</td>
<td>30</td>
<td>270</td>
</tr>
</tbody>
</table>

Given That
T2#4a. (5 pts) Find the probability of those car buyers who chose “looks” as their most important factor for a car buyer given the car buyer is a female.

AND
T2#4b. (4 pts) If one car buyer is randomly chosen from the group, what is the probability that the buyer is male and chose “manufacturer reputation” as their most important factor for the purchase?

MEASURE 1 TYPE: Direct
MEASURE 1 RESULTS:
"Given That": T2#4a 46.3% passed this question with a C or better
No Given That question on the two-way table last year.

"And": T2#4b 73.2% passed this question with a C or better
Last year 78.8% of my students passed this question with a C or better

MEASURE 2: On Test Two, 70% of the students will be able to interpret probabilities from an experiment which include “OR”, “AND”, & “Given That” probabilities correctly with a score of 70% or higher.

OR
T2# 1b. (5 pts) An experiment is rolling two fair four-sided die with numbers 1,2,3,4. Find the probability of getting a sum of 3 or a sum of 6. State the event space.

AND
T2# 1c. (5 pts) An experiment is rolling two fair four-sided die with numbers 1,2,3,4. Find the probability of getting a sum of 7 and the first die is a 4. State the event space.

Given That
T2# 1d. (5 pts) An experiment is rolling two fair four-sided die with numbers 1,2,3,4. Find the probability the first die is a 4 given that the sum is 6. State R.

MEASURE 2 RESULTS:
"Or": T2#1b 80.5% passed this question with a C or better
"And": T2#1b 75.6% passed this question with a C or better
"Given That": T2#1b 48.8% passed this question with a C or better
No Experiment probabilities in last textbook.

FINDINGS Probability needs to be understood but is not a difficult concept. It appears that AND and OR are good, but Given That needs much more attention.

TARGET LEVEL ACHIEVEMENT Partially Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR
MEASURES?

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Given That probabilities were too challenging for my students this year.

1. We will spend more time on Given That probabilities.

Course Outcome

Make inferences based on probability distributions.

AY 2017-2018

MEASURE 1:

On Test Two, 70% of the students will be able to evaluate the binomial probability distribution with a given proportion and sample size to find scores from probabilities with a score of 70% or higher.

T2#9. A poll is given, showing 23% of the families in the community are in favor of a new building project. Suppose 85 families from the community are chosen at random. a. (2 pts) State the random variable. b. (8 pts) Argue that this is a binomial experiment. Remember there are four parts. c. (4 pts) Find the probability that exactly ten of the families favor the new building project. d. (3 pts) Would it be unusual for exactly ten of the families to favor the new building project? Why? e. (4 pts) Find the probability that at least 25 of the families favor the new building project.

MEASURE 1 TYPE: Direct

MEASURE 1 RESULTS: T2#9 73.2% passed this question with a C or better

Binomial probabilities were not taught in the previous book so this was not tested last year.

MEASURE 2:

On Test Two, 70% of the students will be able to evaluate the normal probability distribution with a given mean and standard deviation to find probabilities from between scores with a score of 70% or higher.

T2#7b. (5 pts) U.S. women's heights, in inches, form a normally shaped distribution with a mean of 64.2 inches and a standard deviation of 3.1 inches. What is the probability that a randomly selected U.S. woman is between 61 and 65 inches tall? Draw the normal curve shading the area of probability.

MEASURE 2 TYPE: Direct

MEASURE 2 RESULTS: T2#7b 100% passed this question with a C or better; in fact, the average score was 94.9% on this question.

Last year 88.7% of my students passed this question with a C or better

MEASURE 3:

On Test Three, 70% of the students will be able to find probabilities from a sampling distribution with a score of 70% or higher.

T2#7d. (6 pts) U.S. women's heights, in inches, form a normally shaped distribution with a mean of 64.2 inches and a standard deviation of 3.1 inches. Suppose a random sample of 12 women in the U.S. is taken. Find the probability that the sample mean height is more than 67 inches. Draw the normal curve shading the area of probability.

MEASURE 3 TYPE: Direct

MEASURE 3 RESULTS: T2 #7d 75.6% passed this question with a C or better

Last year 33.3% of my students passed this question with a C or better

MEASURE 4:

On Test Three, 70% of the students will be able to find a confidence interval of the mean of a population from sample of scores, given a normal distribution, with a score of 70% or higher.

T3#6. A random sample of 10 healthy people showed the body temperatures given (in degrees Fahrenheit). Find the 95% confidence interval of the average body temperatures of
the population. Write the interval as an inequality. Round to three decimal places. a. (1 pt)
State the random variable and the parameter in words. b. (4 pts) State and check the
assumptions. c. (5 pts) Find the sample statistics and the confidence interval. Label
everything with letters and write the interval as an inequality. d. (2 pts) Statistical
Interpretation. e. (2 pts) Real World Interpretation.

96.3
97.1
97.1
98.3
98.5
98.6
98.9
98.9
99
99.2

MEASURE 4 TYPE:
Direct

MEASURE 4 RESULTS:
T3#6 87.0% passed this question with a C or better
Last year 89.9% of my students passed this question with a C or better

MEASURE 5:

On Test Three, 70% of the students will be able to find a confidence interval of the proportion
of a population from sample of scores, given a binomial distribution, with a score of 70% or
higher.

T3#4. A research poll showed that 1275 out of 2032 randomly polled people in a country
favor the death penalty for those convicted of murder. Find the 95% confidence interval of the
population proportion favoring the death penalty. Give the confidence interval as an inequality.
Round to 3 decimal places. a. (1 pt) State the random variable and the parameter in words.
b. (6 pts) State and check the assumptions. c. (5 pts) Find the sample statistics and the
confidence interval. Label everything with letters and write the interval as an inequality. d. (2
pts) Statistical Interpretation. e. (2 pts) Real World Interpretation.

MEASURE 5 TYPE:
Direct

MEASURE 5 RESULTS:
T3#4 78.3% passed this question with a C or better
Binomial probabilities were not taught in the previous book so this was not tested last year.

FINDINGS

An understanding of probability distributions is in important for Statistics because all
hypothesis tests are based upon these distributions. They are difficult to understand, so
students often struggle with these types of questions. Some of these concepts can be
memorized but much of the material requires the use of higher level cognitive skills to acquire.
The binomial distribution is new in this new textbook. The students were able to pass the low
boundary but I am not at all happy with 73.2%. Though, it appears that the words “at least”
were very confusing to the students bringing down the score on part e. Finding probabilities
on a normal distribution is quite clear to students until they need to see that the distribution is
the particular sampling distribution which has a particular standard deviation. They don’t
remember to watch for the difference and adjust. Sampling distributions and the Central Limit
Theory remain the reason Statistics is thought of as such a challenging class. I need to
create more emphasis on this concept in the new book.
Confidence intervals are very important to statistics, so it is wonderful that 87% of my
students were able to find the confidence interval when the distribution is a sampling
distribution of means, but the binomial distribution is more difficult.

TARGET LEVEL ACHIEVEMENT

Met

*IF LESS THAN MET, PROGRAM
SHOULD PLAN FURTHER
ACTION TO IMPROVE
PERFORMANCE.
WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Evaluate the normal probability distribution with a given mean and standard deviation to find probabilities is strong with the new textbook.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Find a similar probability when the distribution is a sampling distribution is weak. I need to spend a lot of time on finding probabilities and how the two different distributions call for very different solutions. This book does not give the difference enough emphasis.

1. More time and content needs to be spent on probability distributions and finding probabilities, on the difference between a population and a sampling distribution when finding probabilities. I will add more examples. I will add questions to my take-home quizzes to show the importance of the processes and give students more opportunity for practice than they have right now.
# PLS 100 Assessment Plan Data

## Course Outcome

Students will describe the organs of a plant, integrate them into the plant body, and define their function.

## AY 2017-2018

| MEASURE 1: | 70% of students will complete the practice worksheet labeling each plant organ and defining the functions with an 85% or better. |
| MEASURE 1 TYPE: | Direct |
| MEASURE 1 RESULTS: | 87.5% of students completed the practice worksheet labeling each organ and defining its function with an 85% or better. |

| MEASURE 2: | 85% of students will list any specialty plant organs their field plant posses and define the function with 100% accuracy. |
| MEASURE 2 TYPE: | Direct |
| MEASURE 2 RESULTS: | 90% of students will list any specialty organs their field plant posses and define the function with 100% accuracy. |

| MEASURE 3: | 70% of students will answer the 50 questions on the final exam that directly relates to plant organs and the function with a 70%. |
| MEASURE 3 RESULTS: | 63% of students answered the 50 final exam questions on the final exam that directly relates to plant organs and the function with a 70% or better. |

### FINDINGS

Students could identify the plant organs in a guided worksheet or in practical application but when assessed on a test they struggled with identifying the intricate functions of systems such as understanding the connection between specific tissues and their role in the organ.

### TARGET LEVEL ACHIEVEMENT

Partially Met

### WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Students could easily identify the plant organs and the basic functions.

### WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Students had difficulty understanding the connection between the tissues and the organ and the connection between them.

1. A review of plant tissues and their functions that help in the overall functions of the plant organ need to be spiraled throughout the organ lessons.

2. Students need practice identifying all of the plant tissues that aid in each specific
function of the plant organs.

REVISE MEASUREMENT APPROACH
DESCRIBE CHANGES
More explanation and practice will be provided to help with deeper understanding.
PERSON/ GROUP RESPONSIBLE FOR ACTION
Sarah Berner
TARGET DATE FOR IMPLEMENTATION OF THE ACTION
07/16/2018
PRIORITY
High

Course Outcome
Students will identify basic plant cell structures and explain the development and transfer of energy amongst the sub-cellular organelles.

AY 2017-2018

MEASURE 1:
Students will complete a lab that allows them to look several sub-cellular organelle; such as chloroplasts, chlorophyll, chromoplasts, and nuclei. They will be asked to create plant tissue slides and to identify specific plant cells and organelles. Then they will be asked to explain the function of the cells and organelles. 75% of students will complete this lab with 80% accuracy.

MEASURE 1 TYPE:
Direct
MEASURE 1 RESULTS:
The assessment was not conclusive. The lab asked the students to draw, label, and list the function of cells and organelles. Approximately 50% of the students only completed the drawing with minimal labeling. Of the approximately 50% of students that completed the lab in its entirety, 83% completed the lab with at least 80% accuracy.

MEASURE 2:
Students will complete a quiz that asks them questions regarding cells and cell organelles. They will be asked to identify from pictures, match function, and identify the significance. The questions will be multiple choice, true/false, multiple answer, and matching. There are 25 questions specifically related to this objective. 85% of the students will receive a 70% or better on the quiz.

MEASURE 2 TYPE:
Direct
MEASURE 2 RESULTS:
42% of students received a 70% or better.

MEASURE 3 RESULTS:
The students will be asked 15 questions on the midterm asking them to identify basic cell structure. 70% of the students will be able to correctly answer 11 of the 15 questions.

MEASURE 4:
61% of the students were able to correctly answer 11 or more of the 15 questions.

FINDINGS
The actually knowledge gained is difficult to successfully assess at this point. Measure one, the lab, was inconclusive due to students not completing it in its entirety. Measure
two, the quiz, is clear cut the students could not answer questions related to the objective. However, when the topic was reviewed again at midterm the students seemed to have a stronger grasp of the content.

**TARGET LEVEL ACHIEVEMENT**

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.*

Not Met

Further Action Planned

**WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

The students improved their knowledge throughout the semester which indicates that spiraling the information throughout the course increases understanding.

**WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

Either the lab is not written clearly or the students are not reading directions.

There is not enough exposure to the topics prior to the quiz.

1. This is the first lab that the students complete in this class. More emphasis needs to be placed on the importance of reading and following all instructions.

2. The lab needs to be reviewed and the directions simplified or clarified to ensure that the students understand the expectations of the lab.

3. This is a hybrid course and the lecture material is on Blackboard. A series of practices quizzes need to be set up for the students so that they can better monitor their understanding and come to class with better questions. This will provide more opportunity to discuss the vocabulary and topics prior to the quiz.

**REVISE MEASUREMENT APPROACH**

Implemented Changes, Planned Changes

**DESCRIBE CHANGES**

This is a hybrid course and the lecture material is on Blackboard. A series of practices quizzes need to be set up for the students so that they can better monitor their understanding and come to class with better questions. This will provide more opportunity to discuss the vocabulary and topics prior to the quiz.

The lab needs to be reviewed and the directions simplified or clarified to ensure that the students understand the expectations of the lab.

This is the first lab that the students complete in this class. More emphasis needs to be placed on the importance of reading and following all instructions.

**PERSON/GROUP RESPONSIBLE FOR ACTION**

Sarah Berner

**TARGET DATE FOR IMPLEMENTATION OF THE ACTION**

08/20/2018

**PRIORITY**

High

**Course Outcome**

Students will identify location and function of meristems including apical meristem, vascular cambium, vascular
bundles, and cork cambium.

AY 2017-2018

MEASURE 1:

Students will identify apical meristems, vascular cambium, vascular bundle and cork cambium in the tissues lab. The students view these areas on prepared slides, in a section of mature mesquite tree, and on student prepared slides. The areas are drawn, labeled and the function identified. 75% of students will correctly complete the lab with an 80% or better.

MEASURE 1 TYPE:

Direct

MEASURE 1 RESULTS:

83% of the students received a 90% or better on the tissues lab.

MEASURE 2:

Students will identify location and function of meristems including apical meristem, vascular cambium, vascular bundles, and cork cambium on a 20 question quiz. 75% of the students will receive 70% or better on the tissues quiz.

MEASURE 2 TYPE:

Direct

MEASURE 2 RESULTS:

62.5% of the students received 70% or better on the tissues exam. 54% of the students received an 80% or better.

FINDINGS

The students did well on the lab and marginally well on the quiz regarding identification of location and function of meristems including apical meristem, vascular cambium, vascular bundles, and cork cambium. The results for the lab were better than expected. Those students that did not meet the expectations on the lab, didn’t due to not following directions. The quiz results were lower than expected. When discussing it with the classes, they mentioned the amount of vocabulary was the biggest challenge.

TARGET LEVEL ACHIEVEMENT

Partially Met

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

The students could identify location and function of meristems including apical meristem, vascular cambium, vascular bundles, and cork cambium when working in lab groups and viewing specimen under a microscope.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Students showed more difficulty identifying location and function of meristems including apical meristem, vascular cambium, vascular bundles, and cork cambium in a multiple choice and matching scenario.

1. We will increase the critical thinking and application portion of the lab to improve knowledge and retention of the vocabulary.

2. This is a hybrid class so we will develop practice quizzes so the students can gauge their understanding throughout the lesson and ask more questions.

3. We will provide practice vocabulary problems so the students have the opportunity to utilize the vocabulary more.

REVISE MEASUREMENT APPROACH

Implemented Changes

DESCRIBE CHANGES

We will increase the critical thinking and application portion of the lab to improve
knowledge and retention of the vocabulary. This is a hybrid class so we will develop
practice quizzes so the students can gauge their understanding throughout the lesson
and ask more questions. We will provide practice vocabulary problems so the
students have the opportunity to utilize the vocabulary more.

<table>
<thead>
<tr>
<th>PERSON/ GROUP RESPONSIBLE FOR ACTION</th>
<th>Sarah Berner</th>
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<tbody>
<tr>
<td>TARGET DATE FOR IMPLEMENTATION OF THE ACTION</td>
<td>08/20/2018</td>
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<tr>
<td>PRIORITY</td>
<td>High</td>
</tr>
</tbody>
</table>
Course Outcome

Students will be able to calculate chemical rates based on manufacturer guidelines and regulations.

AY 2017-2018

MEASURE 1:
100% of students will accurately calculate the required chemical rate for the field trial.
MEASURE 1 TYPE:
Direct
MEASURE 1 RESULTS:
95% of students accurately calculated the required chemical rate for the field trial.

MEASURE 2:
100% of students will accurately calculate the required chemical rate based on specific thresholds.
MEASURE 2 TYPE:
Direct
MEASURE 2 RESULTS:
100% of students accurately calculated the required chemical rate based on specific thresholds.

MEASURE 3:
75% of students will correctly determine chemical rates for given scenarios.
MEASURE 3 TYPE:
Direct
MEASURE 3 RESULTS:
68% of students will correctly determine chemical rates for given scenarios.

FINDINGS
Students could determine chemical rates given unlimited resources but when given specific information on a test they struggled.

TARGET LEVEL ACHIEVEMENT
Partially Met

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Students can calculate chemical rates based on manufacturer requirements.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Students have difficulty calculating chemical rates when any resources are limited.

1. Students need more practice with the math involved in calculating chemical rates. More practice problems will be made available on Blackboard.

REVISE MEASUREMENT APPROACH
Planned Changes

DESCRIBE CHANGES
More problems need to be developed to allow the students practice with the math portion of the calculations.
Course Outcome

Students will identify common invertebrate pests and the control strategies to include cultural, biological, and chemical control.

AY 2017-2018

MEASURE 1:
65% of students will complete the complete the review questions with a 75% or better. The quiz will ask students to identify 15 of the most common agricultural pests noted in the IPM Training Manual and select corresponding control methods given a specific crop.

MEASURE 1 TYPE: Direct
MEASURE 1 RESULTS: 6.5% of students completed the review quiz with 75% or better.

MEASURE 2:
85% of students will identify pests and beneficial invertebrates and provide a biological, cultural, and chemical control for all of the pests during an alfalfa sweeping laboratory activity.

MEASURE 2 TYPE: Direct
MEASURE 2 RESULTS: 100% of students identified the pests and beneficials found in the sweeping activity only 78% accurately completed the control method portion of the lab activity.

MEASURE 3:
75% of students will complete the critical thinking questions regarding vertebrate identification and control methods with an 80% or better. Ex: The PCA reported that your block five alfalfa field is at threshold with potato leaf hopper. You intend to cut that field in two days. Would you utilize a beneficial, cultural, or chemical control in this circumstance? What would it be and why?

MEASURE 3 TYPE: Direct
MEASURE 3 RESULTS: 62% of students completed the critical thinking questions with an 80% or better.

FINDINGS
Nearly 100% of students can accurately identify 15 common agricultural pests in the field. Those that attempted the control options actually completed it with 85% or better. Many students didn’t try that portion of the lab assignment. Only 62% of student understood when each of the options are utilized and why.

TARGET LEVEL ACHIEVEMENT
Partially Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.*

Further Action Planned
WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Identification and memorization of the vocabulary was completed by most students with success.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Students were not able to apply the vocabulary and concepts to practical in field situations.

1. There needs to be more guided practice of the practical applications. The lab is started in class but is completed at home. Next time this course is offered the lab will be started in class, the students will be asked to work on it at home, and in the next class section the students would be given time to work together to complete the activity, finally we will discuss it as a class so that all of the students have a clear understanding of the possible control options.

2. After all students complete the review questions, we will set aside time in class to discussed those questions that are most commonly missed to ensure quick feed back and clear up any confusion.

3. The students need to be given more opportunity to practice the field practicums. A section will be added to the lab worksheet that will provide scenarios that ask the student to provide a control method and an explanation. This will allow students to practice on their own, with classmates, and then discuss it in class.

REVISE MEASUREMENT APPROACH

Planned Changes

DESCRIBE CHANGES

Lesson plan changes will be implemented to provide the students with immediate feedback and more practice to ensure that they are truly understanding the concepts and how to implement them. (See recommendations.)

PERSON/ GROUP RESPONSIBLE FOR ACTION

Sarah Berner

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

08/06/2018

PRIORITY

High

Course Outcome

Students will learn the required skills to handle farm chemicals.

AY 2017-2018

MEASURE 1:

90% of students will receive a 80% or better on the chemical safety exam.

MEASURE 1 TYPE:

Direct

MEASURE 1 RESULTS:

92% of students received a 95% or better on the chemical safety exam.

MEASURE 2:

100% of students will demonstrate the three C's (control, contain, clean) of chemical spill.
<table>
<thead>
<tr>
<th>MEASURE 2 TYPE:</th>
<th>Direct</th>
</tr>
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<tbody>
<tr>
<td>MEASURE 2 RESULTS:</td>
<td>100% of students demonstrated the three C's (control, contain, clean) of chemical spill.</td>
</tr>
</tbody>
</table>

**FINDINGS**

Students clearly understand and can implement the chemical safety procedures.

**TARGET LEVEL ACHIEVEMENT**

Met

**WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

Students learned the required skills to handle farm chemicals.

**WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

I want the students to move from simply understanding the rules and demonstrating simple spill clean up to mixing and applying chemicals.

1. Prepare students for applying pesticides to trial plots to further test their knowledge and understanding.

**RESTRUCTURE OUTCOME STATEMENT**

Planned Changes

**DESCRIBE CHANGES**

Prepare students for applying pesticides to trial plots to further test their knowledge and understanding.

**PERSON/ GROUP RESPONSIBLE FOR ACTION**

Sarah Berner

**TARGET DATE FOR IMPLEMENTATION OF THE ACTION**

08/20/2018

**PRIORITY**

Medium

**DESCRIBE ANY ADDITIONAL RESOURCES NEEDED (LEAVE BLANK IF NO ADDITIONAL RESOURCES ARE NEEDED.)**

We received back pack sprayers last semester so there will be no new resources needed.
PSY 170 Assessment Plan Data

Course Outcome
Identify various forms of sexual harassment, abuse, and sexually transmitted infections and preventative measures

AY 2017-2018

MEASURE 1:
Seventy percent of the students will score 75% or better on Exam III

MEASURE 1 TYPE:
Direct

MEASURE 1 RESULTS:
The average score for Exam III was 98.2% [n=24].

FINDINGS
The mean score for Exam II was 98.2% which met the goal of 75%....

TARGET LEVEL
Met

ACHIEVEMENT
Further Action Unnecessary

OVERALL SUMMARY OF FINDINGS
Measure III was met with X=98.2%

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Exam III is producing results same as Exam I covering more material than Exam II....no changes needed.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Students need to ask for clarification on occasion...

ADDITIONAL COMMENTS:
No changes needed at this time
1. Keep using Exam III

OTHER

No changes needed at this time...

OTHER

No changes needed at this time...

PERSON/ GROUP RESPONSIBLE FOR ACTION

Dr. Brooke Ayars

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

08/20/2018

PRIORITY

High

Course Outcome

Increase awareness and appreciation of different views concerning human sexuality in relation to one's sex, gender, sexual orientation, and personal sexual philosophy

AY 2017-2018

MEASURE 1:

Seventy percent of the students will score 75% or better on Exam I

MEASURE 1 TYPE:

Direct

MEASURE 1 RESULTS:

The average score on Exam I was 96.8 [n=24]. So, Measure 1 has been met.

FINDINGS

Exam I mean = 96.8 %

TARGET LEVEL ACHIEVEMENT

Met

OVERALL SUMMARY OF FINDINGS

Measure 1 met.

(Optional entry: Fill out after entering the results for the last outcome/goal being assessed if you would like to provide an overall summary of your findings for the course/program/department being assessed.)

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Exam I was a combination of definition, short answer, and challenge questions...which challenges students to think critically rather than 'finding' an answer on multiple choice exams! Multiple choice exams are 'lazy' exams...

WHAT WEAKNESSES WERE

Students occasionally must ask instructor for clarification...
DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

ADDITIONAL COMMENTS: NA

1. Continue using Exam I...making revisions when necessary!

OTHER

DESCRIBE CHANGES
No changes at this time

OTHER

DESCRIBE CHANGES
No changes at this time

PERSON/GROUP RESPONSIBLE FOR ACTION
Dr. Brooke Ayars

TARGET DATE FOR IMPLEMENTATION OF THE ACTION
08/20/2018

PRIORIT
High

Course Outcome
Understand the mechanics of the human sexual response including intimacy, relationships, and communication styles

AY 2017-2018

MEASURE 1:
Seventy percent of the students will score 75% or better on Exam II

MEASURE 1 TYPE:
Direct

MEASURE 1 RESULTS:
The average score on Exam II was 74.6% [n=24].

FINDINGS
Measure 2 was 'barely' met...with X=74.6% whereupon the goal was X=75%

TARGET LEVEL ACHIEVEMENT
Met

OVERALL SUMMARY OF FINDINGS
Exam II has consistently been the 'lowest' average score in this course! My thinking is because it involves more physiologically driven terms...
| WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES? | This exam is extremely challenging covering only two chapters versus the other exams which cover three chapters....difficult terms???
| WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES? | Challenging material...
| ADDITIONAL COMMENTS: | I want to keep the exam as is...no changes! Same format as the other two exams in this class...

1. Keep exam...make no changes!

| OTHER | No changes needed at this time
| OTHER | No changes needed at this time
| PERSON/ GROUP RESPONSIBLE FOR ACTION | Dr. Brooke Ayars
| TARGET DATE FOR IMPLEMENTATION OF THE ACTION | 08/20/2018
| PRIORITY | High
QBA 211 Assessment Plan Data

Course Outcome

Students should be able to calculate and interpret confidence intervals.

AY 2017-2018

MEASURE 1:
Students should be able to calculate and interpret a confidence interval for mu, sigma unknown. (target = 75%)

MEASURE 1 TYPE:
Direct

MEASURE 1 RESULTS:
On an exam students scored 85%

MEASURE 2:
Students should be able to calculate and interpret a confidence interval for the population proportion (target = 60%)

MEASURE 2 TYPE:
Direct

MEASURE 2 RESULTS:
On an exam students scored 67%

FINDINGS
Students were able to grasp the concepts of confidence intervals. Although the % of students that grasped the more advanced concept of a CI for proportions should be higher.

TARGET LEVEL ACHIEVEMENT
Partially Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

OVERALL SUMMARY OF FINDINGS
Additional example of proportion CI should be presented. Additional homework problem should be given.

Course Outcome

Students should be able to calculate and interpret descriptive
statistics for a set of raw data.

AY 2017-2018

MEASURE 1: Calculate the mean of a data set. (basic concept level target level is 75%)
MEASURE 1 TYPE: Direct
MEASURE 1 RESULTS: On an exam students scored 100%

MEASURE 2: Calculate the variance of a data set. (advanced concept level target level is 60%)
MEASURE 2 TYPE: Direct
MEASURE 2 RESULTS: On an exam students scored 91%

FINDINGS
Students were able to grasp the basic descriptive statistics concepts.

TARGET LEVEL
Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

FURTHER ACTION UNNECESSARY

OVERALL SUMMARY OF FINDINGS

(OPTIONAL ENTRY: FILL OUT AFTER ENTERING THE RESULTS FOR THE LAST OUTCOME/GOAL BEING ASSESSED IF YOU WOULD LIKE TO PROVIDE AN OVERALL SUMMARY OF YOUR FINDINGS FOR THE COURSE/PROGRAM/DEPARTMENT BEING ASSESSED.)

Course Outcome
Students should be able to calculate and interpret marginal, joint and conditional probabilities for events.

AY 2017-2018
MEASURE 1:
Calculate a marginal probability from data in a contingency table. (basic concept target level is 75%)

MEASURE 1 TYPE:
Direct

MEASURE 1 RESULTS:
On an exam students scored 95%

MEASURE 2:
Calculate a conditional probability from data in a contingency table. (advanced concept target level is 60%)

MEASURE 2 TYPE:
Direct

MEASURE 2 RESULTS:
On an exam students scored 85%

FINDINGS
Students were able grasp the basic concepts of probability.

TARGET LEVEL ACHIEVEMENT
Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

Further Action Unnecessary

Course Outcome
Students should be able to calculate and interpret multiple regression models

AY 2017-2018

MEASURE 1:
Students should be able to correctly formulate and calculate (using Excel) a multiple regression model based on a dataset. (basic concept level target level is 75%)

MEASURE 1 TYPE:
Direct

MEASURE 1 RESULTS:
On an exam students scored 79%

MEASURE 2:
Students should be able to correctly interpret the meaning of a dummy variable in the context of a multiple regression model. (advanced concept level target level is 60%)

MEASURE 2 TYPE:
Direct

MEASURE 2 RESULTS:
On an exam students scored 67%

FINDINGS
Students are still having problems grasping the concept of a dummy variable, even though one is now mandatory in the multiple regression project given in class.

TARGET LEVEL ACHIEVEMENT
Partially Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

Further Action Planned

1. Additional time needs to be spent on the use and interpretation of dummy variables. They should be included on quizzes and exams earlier in the semester to motivate
students to learn,

Course Outcome

Students should be able to calculate and interpret probabilities based on discrete and continuous distributions.

AY 2017-2018

MEASURE 1:
Calculate the mean of a discrete probability distribution. (basic concept target level is 75%)
MEASURE 1 TYPE: Direct
MEASURE 1 RESULTS: On an exam students scored 85%

MEASURE 2:
Calculate the X value that cuts a certain percentage. (advanced concept target level is 60%)
MEASURE 2 TYPE: Direct
MEASURE 2 RESULTS: On an exam students scored 75%

FINDINGS
Students were able to grasp the concepts of distributions.

TARGET LEVEL ACHIEVEMENT
Met

"IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

Course Outcome

Students should be able to calculate and interpret simple regression models

AY 2017-2018

MEASURE 1:
Students should be able to calculate (using Excel) a simple regression model and use it to predict a Y value for a particular X value. (basic concept target level is 75%)
MEASURE 1 TYPE: Direct
MEASURE 1 RESULTS: On an exam students scored 83%

MEASURE 2:
Students should be able to interpret a regression slope coefficient in the context of a model. (advanced concept target level is 60%)
MEASURE 2 TYPE: Direct
MEASURE 2 RESULTS: On an exam students scored 47%
Students are able to use the linear model to predict outcomes, but are not as competent at interpreting the relationship that forms the basis of that prediction.

Partially Met

Further Action Planned

Additional classtime should be spent on the topic of slope based relationships between variables in a regression model.

Course Outcome

Students should be able to calculate and interpret tests of hypotheses.

AY 2017-2018

MEASURE 1: Calculate and interpret a hypothesis test for mu, sigma unknown (basic concept level target level is 75%)

MEASURE 1 TYPE: Direct

MEASURE 1 RESULTS: On an exam students scored 85%

MEASURE 2: Calculate and interpret a hypothesis test for a proportion (advanced concept target level is 60%)

MEASURE 2 TYPE: Direct

MEASURE 2 RESULTS: On an exam students scored 67%

FINDINGS

Although students are grasping the basic concept and the advanced concept at reasonable rates, more emphasis should be placed on proportions as with confidence intervals.

Partially Met

Further Action Planned
One additional problem worked in lecture. One additional homework problem given as practice.
# SOC 101 Assessment Plan Data

## Course Outcome
Describe the basic principles of social movements and social change

### AY 2017-2018

**MEASURE 1:**
Seventy percent of the students will score 75% or better on Exam III

**MEASURE 1 TYPE:**
Direct

**MEASURE 1 RESULTS:**
N = 24 / M = 90.3%

### FINDINGS
Exam III mean score for the entire class [n=24] was 90.3%...outcome met!

**TARGET LEVEL**
Met

**OVERALL SUMMARY OF FINDINGS**
Outcome was met! The data involved 100% of the class with mean score of 90.3%

### WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Lectures were thorough and strong...with use of PP slides...and review session prior to exam! All seemingly effective for preparation of Exam III...

### WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Administer individual chapter quizzes for more 'practice' with the material...

1. Incorporate individual chapter quizzes for additional practice with the material...

### DESCRIE CHANGES
**DESCRIBE CHANGES**
Continue to assess same measurement and outcome...incorporate more quizzes!

**DESCRIBE CHANGES**
NA
### Course Outcome

Describe the basic schools of thought in sociology, society and culture, and social structure

### AY 2017-2018

<table>
<thead>
<tr>
<th>MEASURE 1:</th>
<th>Seventy percent of the students will score 75% or better on Exam I.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEASURE 1 TYPE:</td>
<td>Direct</td>
</tr>
<tr>
<td>MEASURE 1 RESULTS:</td>
<td>N=24 / M=81.4 %</td>
</tr>
</tbody>
</table>

**FINDINGS**

The average score on Exam I was 81.4% which has met the measurement for this outcome.

**TARGET LEVEL ACHIEVEMENT**

Met

**WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

At this time, I believe lectures are strong and effective. PowerPoint slides are extremely valuable and helpful. The review session prior to the exam also is very valuable...

**WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

For those students who fell below the 75%, I believe it is due to the fact that they failed to prepare for the exam. I make this statement because I always ask, "What happened? What did you think about the exam?" And, the standard reply from this group is, 'I failed to study!'

1. Implement and administer chapter quizzes prior to the exam...

**DESCRIBE CHANGES**

No planned changes for the assessment at this time for this particular outcome and measurement because goal was met...

**PERSON/ GROUP RESPONSIBLE FOR ACTION**

Dr. Brooke Ayars

**TARGET DATE FOR IMPLEMENTATION OF THE ACTION**

08/13/2018

**PRIORITY**

High

**DESCRIBE ANY ADDITIONAL RESOURCES NEEDED (LEAVE)**

Need to create individual chapter quizzes...disregarding standard, four pop quizzes per class.
Course Outcome

Identify the basic concepts of the socialization process, social deviance, and the family system

AY 2017-2018

MEASURE 1:

Seventy percent of the students will score 75% or better on Exam II.

MEASURE 1 TYPE:

Direct

MEASURE 1 RESULTS:

N=24 / M = 94.6 %

FINDINGS

The average score for Exam II was 94.6 which clearly met this outcome measurement.

TARGET LEVEL ACHIEVEMENT

Met

OVERALL SUMMARY OF FINDINGS

Outcome met!

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

I believe the outcome was met [above and beyond expectations] because Exam II was administered as a 'take home' test! This is not my standard practice for administering exams...

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

My concern: Test was administered as a 'take home' which is not standard practice...my thoughts are the mean score would not be as 'high' if the test was administered in class!

1. No 'take home' testing...

DESCRIBE CHANGES

No changes to the assessment measurement...just need to always administer exams in class for accurate evaluation of their knowledge regarding Exam II material...

DESCRIBE CHANGES

NA
<table>
<thead>
<tr>
<th>PERSON/GROUP RESPONSIBLE FOR ACTION</th>
<th>Dr. Brooke Ayars</th>
</tr>
</thead>
<tbody>
<tr>
<td>TARGET DATE FOR IMPLEMENTATION OF THE ACTION</td>
<td>08/13/2018</td>
</tr>
<tr>
<td>PRIORITY</td>
<td>High</td>
</tr>
</tbody>
</table>
**SOC 230 Assessment Plan Data**

**Course Outcome**
Analyze the impact of able-ism, crime, and addiction as contemporary social problems

**AY 2017-2018**

**MEASURE 1:** Seventy percent of the students will score 75% or better on Exam III

**MEASURE 1 TYPE:** Direct

**MEASURE 1 RESULTS:** The average score for Exam III was 93.3% [n=27]

**FINDINGS**
Measure III was met because $X=93.3\%$...

**TARGET LEVEL ACHIEVEMENT**
Met

**IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.**
Further Action Unnecessary

**OVERALL SUMMARY OF FINDINGS**
Continue to use this exam...

**WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**
The exam challenges students' thinking...cannot successfully complete this test by 'guessing' or not being prepared!

**WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**
Clarification is always a challenge when creating your own exams [validity and reliability]...

**ADDITIONAL COMMENTS:** Continue to use this exam
Course Outcome

Analyze the impact of racial, gender, and sexual inequality as contemporary social problems

AY 2017-2018

**MEASURE 1:** Seventy percent of the students will score 75% or better on Exam II

**MEASURE 1 TYPE:** Direct

**MEASURE 1 RESULTS:** The average score for Exam II was 85.7% [n=27]

**FINDINGS**

X=85.7% [n=27]...measure was met! Exam consisted of definitions, short answers, and challenge questions...

**TARGET LEVEL ACHIEVEMENT**

Met

**"IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE."**

Further Action Unnecessary

**WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

The exam is highly thorough...cannot 'guess' on these types of tests! Students must understand and be able to apply the material...much critical thinking involved!

**WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

Students sometimes need to ask for clarification...

**ADDITIONAL COMMENTS:**

Keep using the exam...

1. No changes needed at this time because measure was met...

OTHER

No changes needed at this time
Course Outcome
Utilize various sociological approaches to interpreting and analyzing social problems

AY 2017-2018

MEASURE 1:
Seventy percent of the students will score 75% of better on Exam I

MEASURE 1 TYPE:
Direct

MEASURE 1 RESULTS:
The average score on Exam I was 93.4% \( [n=27] \)

FINDINGS
The goal for Measure 1 was met because the mean was 93.4% which far exceeds the base goal of 75%...this exam was a combination of short answer, definitions, and challenge questions.....more preparation is required for this type of exam!

TARGET LEVEL ACHIEVEMENT
Met

“IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.
Further Action Unnecessary

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
These are challenging exams...more so than multiple choice tests! Keep exam...

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Students sometimes must ask for clarification...after each administration of the exam, this professor revises for additional clarification!

ADDITIONAL COMMENTS:
Keep using exam...

1.
No changes needed at this time...

OTHER
No changes needed at this time

OTHER
No changes needed at this time

PERSON/ GROUP RESPONSIBLE FOR ACTION
Dr. Brooke Ayars

TARGET DATE FOR IMPLEMENTATION OF THE ACTION
08/20/2018

No changes needed at this time
Dr. Brooke Ayars

TARGET DATE FOR IMPLEMENTATION OF THE ACTION
08/20/2018

PRIORITY
High
IMPLEMENTATION OF THE ACTION

PRIORITY High

https://azwestern.tk20.com/campustoolshighe...
# THE 101 Assessment Plan Data

**Course Outcome** Acquire the vocabulary and critical understanding to allow for creative expression of critical thinking as applied to the performing arts.

## AY 2017-2018

<table>
<thead>
<tr>
<th>Measure</th>
<th>Description</th>
<th>Type</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEASURE 1:</td>
<td>100% of students are able to apply critical guidelines to discuss live performance and make a personal aesthetic assessment in four appropriately written short papers.</td>
<td>Direct</td>
<td>100% of students wrote at least one paper. 80% wrote 4. 100% addressed performances with terminology learned in class</td>
</tr>
<tr>
<td>MEASURE 2:</td>
<td>Quiz: 70% of students able to articulate the difference in the actor-audience relationship between an arena stage, a thrust stage and a proscenium theatre</td>
<td>Direct</td>
<td>85% were able to define the different areas</td>
</tr>
<tr>
<td>MEASURE 3:</td>
<td>Written Exam: 80% of Students able to identify the social and cultural pressures which historically affected the developments of theatrical style between Ancient Greece and the Renaissance.</td>
<td>Direct</td>
<td>90% met this goal</td>
</tr>
<tr>
<td>MEASURE 4:</td>
<td>Written exam: 80% able to name and define the 5 M's of Midieval Theatre</td>
<td>Direct</td>
<td>95% achieved this goal in tests</td>
</tr>
</tbody>
</table>

**Target Level Achievement** Met

**What Strengths Were Displayed Through The Assessments Of Your Measures?** Repetition of questions and in class drills built vocabulary

**What Weaknesses Were Displayed Through The Assessments Of Your Measures?** Not all students engage in writing the papers

**Additional Comments:** Although additional (and FREE) opportunities were provided, some students do not chose to make the time to attend events
1. more in class practice with analysis

OTHER

additional repetition and quizzes

PERSON/ GROUP RESPONSIBLE FOR ACTION

Ann Wilkinson

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

12/14/2018

PRIORITY

Medium

Course Outcome

Demonstrate an understanding of theatre as a way of learning about broader issues

AY 2017-2018

MEASURE 1:

Class presentation of a historical topic, relating it successfully to the world of theatre. 100% will achieve this measure.

MEASURE 1 TYPE:

Direct

MEASURE 1 RESULTS:

98% of students participated in a presentation.

MEASURE 2:

Class presentation of a historical topic, relating it successfully to the world of theatre. The presentation requires and must incorporate good oral skills and knowledge of topic being presented. 75% will achieve this measure.

MEASURE 2 TYPE:

Direct

MEASURE 2 RESULTS:

For the first time, the results of this have been mixed; students were either too literal in their interpretation of selected historical topics and the influence on theatre, or just ignored any relationship. Most students saw no relationship or made any connection between world events and theatrical topics and styles.

MEASURE 3:

Class presentation of a historical topic, relating it successfully to the world of theatre. The presentation requires and must incorporate a thesis statement, formal outline and bibliography utilizing good research and written skills.

MEASURE 3 TYPE:

Direct

MEASURE 3 RESULTS:

99% participated in presentation and 100% of those contributed in some way to the oral presentation. 90% submitted some form of outline. 72% of those met bibliography requirements.

MEASURE 4:

100% of students will participate in the small group presentation of a short 10-20 line "play" exploring a current topic written by group members and performed in a style defined by the group.

MEASURE 4 TYPE:

Indirect

MEASURE 4 RESULTS:

100% of students present in class on the day of this exercise participated.

FINDINGS

Writing skills and overall understanding of the purpose of outlines was mixed. Despite
bring in a speaker from the student success writing center, examples posted on blackboard and a discussion in class, many students still struggle with creating an outline. Many also chose to "misunderstand" the requirement of including a bibliography as they prefer to lift everything from the internet and not do actual book research. Working as a group also proves challenging for some.

TARGET LEVEL ACHIEVEMENT

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

OVERALL SUMMARY OF FINDINGS

(TARGET LEVEL: PARTIALLY MET)

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

This is a research skill they need to learn in case they pursue a higher degree and I will continue to require it. Working together is also a skill they must attain.

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

The students do begin to relate theatre to history and understand how they "influence" one another.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

inadequate student preparation for college work: i.e. not reading, poor writing skills, etc. will need to be continually addressed.

1. taking the class TO the library to work with a librarian for a guided research day
2. I will be reexamining my introduction to and discussion of the anthropological/cultural relationship between theatre and world events in an effort to clarify for next year's students.

OTHER

additional repetition and quizzes

daily quizzes over reading assignments

other

additional research instruction

daily quizzes over reading assignments

Other

Describe Changes

taking the class TO the library to work with a librarian for a guided research day

daily quizzes over reading assignments

Person/ Group Responsible for Action

Ann Wilkinson

Target Date for Implementation of the Action

08/31/2018
Course Outcome

Demonstrate basic knowledge of theatrical literature representative of the periods of development of theatre from ancient Greece to the mid-nineteenth century.

AY 2017-2018

MEASURE 1:
Final Written exam: 80% will be able to name both the five plays read and discussed in class and the appropriate playwrights.

MEASURE 1 TYPE:
Direct

MEASURE 1 RESULTS:
On the written final, 55% of the students were able to list all five plays and correctly name the playwrights who wrote the material. Another 22% were able to correctly identify four of the five, while the remaining students provided either a list of only the plays read, or partial lists of both.

FINDINGS
This would appear to be a student-centric study/memorization glitch, and not one that could be corrected in class.

TARGET LEVEL ACHIEVEMENT
Partially Met

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Given that many of the students have not read, much less seen, a play prior to taking this class, it is a major achievement for the students to have been exposed to and recall samples of theatrical work spanning more than 2000 years. The in class discussions about the material and student generated review questions play a large role in the retention of this information.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Many students have come to rely on being taught "to the test" in high school and other classes, and therefore often request that I provide them with study guides which I do not believe in utilizing. We do spend several class periods at the end of the term reviewing course material during which all five plays and authors are again touched upon. While it is disappointing that only 55% could recall both the five plays and playwrights, I believe the problem lies with the individual students and their personal retention.

1.
I do not plan to change the approach at this time and will continue to strive for the desired result, rather than lower expectations.

OTHER
none

OTHER
none

PERSON/ GROUP RESPONSIBLE FOR ACTION
Ann Wilkinson

TARGET DATE FOR IMPLEMENTATION OF THE ACTION
12/14/2018
Course Outcome

Develop the ability to read play scripts and dramatic criticism for sense and thematic appreciation.

AY 2017-2018

MEASURE 1:
Midterm test: 70% of students understand and can articulate the relationship between ritual, theatre and religion.

MEASURE 1 TYPE:
Direct

MEASURE 1 RESULTS:
Based on a series of questions, 70% understood that drama began as the use of ritual in worship.

MEASURE 2:
Midterm test: 80% of all students able to list and briefly define the components of ancient Greek theatre as outlined in Aristotle’s Six Elements of Theatre and the Three Unities of Drama.

MEASURE 2 TYPE:
Direct

MEASURE 2 RESULTS:
41% of all students were able to list and briefly define the components of ancient Greek theatre as outlined in Aristotle’s Six Elements of Theatre and the Three Unities of Drama. 52% succeeded with very minor need of correction, while the remaining 11% had at least partially correct answers.

MEASURE 3:
Midterm tests: 80% will be able to name the plays and playwrights which have been read and discussed in class to this point, along with their importance in the development of theatre.

MEASURE 3 TYPE:
Direct

MEASURE 3 RESULTS:
Only 38% of the students were able to correctly answer all five questions specifically addressing this measure on the midterm. Specific questions had the percentage of incorrect answers ranging between 27%-94%, depending on the specific question.

MEASURE 4:
Final Exam: 100% of all students able to list and briefly define the components of ancient Greek theatre as outlined in Aristotle’s Six Elements of Theatre and the Three Unities of Drama.

MEASURE 4 TYPE:
Direct

MEASURE 4 RESULTS:
90% were able to of all students able to list and briefly define the components of ancient Greek theatre as outlined in Aristotle’s Six Elements of Theatre and the Three Unities of Drama. The remaining 10% succeeded with very minor need of correction.

MEASURE 5:
Final Exam: 100% of students articulating an understanding of the relationship between theatre and religion

MEASURE 5 TYPE:
Direct

MEASURE 5 RESULTS:
88% were able to clearly articulate an understanding of the relationship between theatre and religion.

TARGET LEVEL

MET

ACHIEVEMENT

OVERALL SUMMARY OF

Students improved their grasp of the historical relationship between theatre and
FINDINGS

(Optional Entry: Fill out after entering the results for the last outcome/goal being assessed if you would like to provide an overall summary of your findings for the course/program/department being assessed.)

Religion over the term, with 100% demonstrating knowledge of the components of ancient Greek theatre as outlined in Aristotle's Six Elements of Theatre and the Three Unities of Drama.

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Class discussions consistently referencing Aristotle's Elements and applying them to each play read cemented the points for the students.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Questions used for measurement should be more uniform in nature

1. The same questions regarding specific playwrights which are used in the midterm should be repeated in the final to check for actual retention

OTHER

additional repetition and quizzes

PERSON/GROUP RESPONSIBLE FOR ACTION

Ann Wilkinson

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

12/14/2018

PRIORITY

Medium
THE 102 Assessment Plan Data

Course Outcome  
Students able to identify the social and cultural pressures which historically affected the developments of theatrical style between 1880-today.

AY 2017-2018

MEASURE 1: Quiz and exam questions  
MEASURE 1 TYPE: Direct  
MEASURE 1 RESULTS: Students were able to identify and discuss many of the cultural and world events which generated developments and change within theatrical style. Most students also began to recognize the repetitious patterns affecting the changes.

MEASURE 2: Student groups selected current news/cultural topics to discuss as a group. They then wrote and presented short 10-20 line plays about the topic in any style and utilizing any theatrical "ism" of their choice.  
MEASURE 2 TYPE: Direct  
MEASURE 2 RESULTS: Subjects were selected and plays were scripted and "performed" Students were identifying and discussing developing social and cultural pressures which are affecting change in the theatre at present.

MEASURE 3: discussion  
MEASURE 3 TYPE: Indirect  
MEASURE 3 RESULTS: In class exercise of listing historical events, books, artistic movements and political changes happening NOW which leads to comparisons with past change

FINDINGS  
Students particularly enjoy working as a unit to create an uncensored "play"  
It really helps them to understand how theatre can be used to discuss current topics

TARGET LEVEL ACHIEVEMENT  
Met

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?  
Students engage in and enjoy this exercise. Often stimulated to begin talking more about world events.

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?  
Some students refuse to stay informed about the world around them
1. utilize this exercise at two different times in class

IMPLEMENT ADDITIONAL TRAINING

DESCRIBE CHANGES
Implement the exercise in class more than once during the term. Consider requiring students to bring newspapers to class for one week.

PERSON/ GROUP RESPONSIBLE FOR ACTION
Ann Wilkinson

TARGET DATE FOR IMPLEMENTATION OF THE ACTION
12/14/2018

PRIORITY
High

Course Outcome
Students able to identify various movements and stylistic shifts between 1800-current day.

AY 2017-2018

MEASURE 1: Midterm Exam
MEASURE 1 TYPE: Direct
MEASURE 1 RESULTS: The majority of the students received a C or below; with only 7 B's and 4 A's awarded

MEASURE 2: Final exam
MEASURE 2 TYPE: Direct
MEASURE 2 RESULTS: 9% of students earned A's
27% earned B's

MEASURE 3: Quizzes
MEASURE 3 TYPE: Direct
MEASURE 3 RESULTS: Results varied depending on whether the quizzes were announced or "pop" but served to help students track progress

MEASURE 4: In class discussions
MEASURE 4 TYPE: Indirect
MEASURE 4 RESULTS: small group discussions and resulting opinions; random checks by professor

TARGET LEVEL ACHIEVEMENT
Partially Met

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Those students who did the readings were very engaged in discussions and comparisons
WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Short of turning the class into a study hall and allowing them to do their homework and reading during what must needs be lecture and discussion, I am at a loss.

1. students have to make this leap toward responsibility

OTHER

additional repetition and quizzes

DESCRIBE CHANGES

more pop quizzes to track reading progress

PERSON/ GROUP RESPONSIBLE FOR ACTION

Ann Wilkinson

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

12/14/2018

PRIORITY

High

Course Outcome

Students will acquire the vocabulary and critical understanding to allow for creative expression of critical thinking as applied to the performing arts and develop the ability to read play scripts and dramatic criticism for sense and thematic appreciation.

AY 2017-2018

MEASURE 1:

Reviews; four papers utilizing and applying an understanding of the elements of dramatic criticism.

MEASURE 1 TYPE:

Direct

MEASURE 1 RESULTS:

Only 58% of the students chose to submit all 4 required papers applying aesthetic critiques. 220% of the students submitted three 22% submitted only 2 during the term. The papers submitted steadily improved in points received.

MEASURE 2:

Presentations - one group presentation over an assigned topic and how it affected the theatrical world, etc. A written outline with thesis and bibliography required.

MEASURE 2 TYPE:

Direct

MEASURE 2 RESULTS:

2% of the original 40 students failed to participate in the presentations 10% did not include required bibliography Only one group got a perfect score with 37% earning very high presentation points. One group failed to meet the criteria and were offered the opportunity to represent

MEASURE 3:

In class discussion of assigned readings

MEASURE 3 TYPE:

Indirect

MEASURE 3 RESULTS:

Each student is randomly asked for opinions regarding theme, style, etc.
FINDINGS
Student writing became steadily more descriptive of events. Those students who attended events and wrote papers also became more verbal in class. Student reading and ability to research are at very undeveloped levels. Despite repeated efforts (bringing student success writing personnel TO class; posting sample on Blackboard & providing links to other examples students still struggle with thesis, outline & bibliography.

TARGET LEVEL ACHIEVEMENT
Partially Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.
Further Action Planned

OTHER
research requirement strengthened

DESCRIBE CHANGES
Require more actual texts; allow only two on line sources

OTHER
research approach

DESCRIBE CHANGES
implement a day in the library with hands on research for students. This will require a change of syllabus; possibly dropping a reading assignment and a lecture

PERSON/GROUP RESPONSIBLE FOR ACTION
Ann Wilkinson

TARGET DATE FOR IMPLEMENTATION OF THE ACTION
01/27/2019

PRIORITY
Medium

Course Outcome
Students will develop an understanding of theatre as a way of learning about broader issues.

AY 2017-2018

MEASURE 1:
Demonstrate the ability to identify themes, cultural phenomenon and how the interpretations change according to social developments. Demonstrate an ability to articulate and defend ideas.

MEASURE 1 TYPE:
Indirect

MEASURE 1 RESULTS:
98% of students joined in class discussions about readings and the reflection on current topics was often lively
100% were called on in class for personal opinions

MEASURE 2:
Assigned questions requiring short opinion responses followed by small group discussions of said questions which are then shared with the class.

MEASURE 2 TYPE:
Direct

MEASURE 2 RESULTS:
90% of students submitted some form of written response to assigned questions. All were required to offer oral commentary.
MEASURE 3:

In class discussions of significant historical events and the impact on theatre and vice versa. Students invited to discuss modern technology/politics/mores and how they see reflections of those phenomena on stage.

MEASURE 3 TYPE:

Indirect

MEASURE 3 RESULTS:

faculty requests for commentary and participation

FINDINGS

Students become very engaged when they realize that politics, human rights, love, sex, religion and opinions are present in every play and not only reflect the cultural conditions present when the play was written, but also apply in today's world. The progress made or changes in approach toward a particular subject stimulate comparisons to their world. Reading works from other countries and cultures encourages discourse.

TARGET LEVEL

Met

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

students often begin to mention what they see in the world around them being reflected in film and television

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

Not all students feel comfortable engaging in vibrant class discussion. Some students immediately use electronics to try to find an answer to any stated question rather than form their own opinion or chose to try to write an opinion during discussion in class. The struggle remains in getting the students to read the material.

1. require electronic submission of commentary PRIOR to class meeting

OTHER

stronger enforcement of deadlines

description changes

electronic submission and cut off times

PERSON/GROUP RESPONSIBLE FOR ACTION

Ann Wilkinson

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

12/14/2018

PRIORITY

High
**THE 110 Assessment Plan Data**

**Course Outcome**
Create a prompt book and all related paperwork for an assigned script.

**AY 2017-2018**

<table>
<thead>
<tr>
<th>MEASURE 1:</th>
<th>Create prompt book for staged reading, including all paperwork, marked beats, etc as defined by rubric</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEASURE 1 TYPE:</td>
<td>Direct</td>
</tr>
<tr>
<td>MEASURE 1 RESULTS:</td>
<td>90% . Student chose to make assumptions based on past experience rather than current training</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MEASURE 2:</th>
<th>Create documents and checklists for each phase of production from pre-production through wrap</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEASURE 2 TYPE:</td>
<td>Direct</td>
</tr>
<tr>
<td>MEASURE 2 RESULTS:</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MEASURE 3:</th>
<th>Watch video and complete Industry Standard Safety exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEASURE 3 TYPE:</td>
<td>Direct</td>
</tr>
<tr>
<td>MEASURE 3 RESULTS:</td>
<td>95%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MEASURE 4:</th>
<th>Present prompt book from full stage production according to rubric provided demonstrating ability to note blocking, cues, etc,</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEASURE 4 TYPE:</td>
<td>Direct</td>
</tr>
<tr>
<td>MEASURE 4 RESULTS:</td>
<td>100%</td>
</tr>
</tbody>
</table>

**FINDINGS**
This hands on approach works exceptionally well. Best to move from in class exercise to staged reading to full production if possible. Largest obstacle is often past assumptions and not knowing how to ask questions

**TARGET LEVEL ACHIEVEMENT**
Met

**WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**
Hands on aspects

**WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**
need more time spent with taping, measuring and communication skills
Course Outcome

Define the major phases of a production and the role of the stage manager and assistant stage manager within each phase and in live performance.

AY 2017-2018

MEASURE 1:
Discussion of reading materials; student required to come prepared with questions

MEASURE 1 TYPE:
Indirect

MEASURE 1 RESULTS:
95% successful based on faculty and staff observation

MEASURE 2:
Student created paperwork and checklists for each phase of production

MEASURE 2 TYPE:
Direct

MEASURE 2 RESULTS:
100%

Course Outcome

Develop methods and terminology to communicate effectively with artists and technicians in the performing arts. Display a professional attitude and behavior in all stage management activities.

AY 2017-2018
**MEASURE 1:** Discussion of reading material pertaining to topic. Conversations regarding professionalism and what constitute the characteristics and ethics of a good stage manager. Discussion and modeling of professional behavior.

**MEASURE 1 TYPE:** Indirect

**MEASURE 1 RESULTS:** 98% comprehension based faculty and staff observation as well as student observations.

**MEASURE 2:** Learning and Use of Virtual Callboard; professional tool recommended by IATSE. Reports filed on time, communication with crew, designers and actors consistent.

**MEASURE 2 TYPE:** Direct

**MEASURE 2 RESULTS:** 80% students resist communicating with callboard as they prefer to use their phones and/or do not file information within a reasonable time frame. Do not file paperwork because they have "talked about it".

**MEASURE 3:** Create and maintain a clear and informative callboard; complete with schedule, rules, sign-in sheets, contacts, reports, updates, etc.

**MEASURE 3 TYPE:** Direct

**MEASURE 3 RESULTS:** 50% Students prefer to use their phones and resist this method.

**MEASURE 4:** Create and complete all forms necessary to the production in a timely manner.

**MEASURE 4 TYPE:** Direct

**MEASURE 4 RESULTS:** 100% As these forms also need to be in the final SM book, this was accomplished; albeit some were done rather after the fact.

**TARGET LEVEL ACHIEVEMENT**

Met

**WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

hands on work creates solid comprehension

**WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

finding the means to demonstrate/enforce better communications

1. devise some hands on exercises with virtual callboard

**OTHER**

communication concentration

**DESCRIBE CHANGES**

devise additional exercises with professional callboard

**PERSON/GROUP RESPONSIBLE FOR ACTION**

Ann Wilkinson

**TARGET DATE FOR IMPLEMENTATION OF THE ACTION**

05/10/2019

**PRIORITY**

Medium
Course Outcome
Perform SM duties in either a classroom activity or an actual production.

AY 2017-2018

MEASURE 1:
Perform stage management duties for scripted reading; including working with director on selecting venue.

MEASURE 1 TYPE:
Direct

MEASURE 1 RESULTS:
100%

MEASURE 2:
Perform stage management duties for an actual AWC production, including creating and maintaining a function SM book and attending all rehearsals, calling the show, etc.

MEASURE 2 TYPE:
Direct

MEASURE 2 RESULTS:
100%

MEASURE 3:
Learning and utilizing Virtual Callboard as a professional tool

MEASURE 3 TYPE:
Direct

MEASURE 3 RESULTS:
70%
Students resist this tool favoring their cellphones instead

TARGET LEVEL ACHIEVEMENT
Met

1. continue to work on student ability to communicate

OTHER
none

DESCRIBE CHANGES
none

PERSON/ GROUP RESPONSIBLE FOR ACTION
Ann Wilkinson

TARGET DATE FOR IMPLEMENTATION OF THE ACTION
06/29/2018

PRIORITY
Low
THE 171 Assessment Plan Data

Course Outcome
Student will demonstrate an understanding of the craft of the actor through scene work and monologue performance.

AY 2017-2018

MEASURE 1:
Midterm exam: 100% will have memorized, polished and performed a one to two minute monologue for classmates. This includes the written submission of the typed monologue marked with beats, action verbs and character analysis.

MEASURE 1 TYPE:
Direct

MEASURE 1 RESULTS:
100% were prepared with a rehearsed monologue. 80% included all required written materials.

MEASURE 2:
Final presentation: 100% of students will have memorized and present a 10 minute scene. The successful presentation includes written work including character work, beats, floor plan, props list, appropriate costuming and record of time spent in rehearsal.

MEASURE 2 TYPE:
Direct

MEASURE 2 RESULTS:
100% presented a ten minute scene. 98% were completely memorized. 90% included all of the required paperwork.

MEASURE 3:
Final presentation of one-two minute memorized monologue, incorporating notes given throughout the term.

MEASURE 3 TYPE:
Direct

MEASURE 3 RESULTS:
100% achieved this goal.

MEASURE 4:
Quiz: 90% will understand and be able to demonstrate the Alexander Method of posture and breathing and its application to acting.

MEASURE 4 TYPE:
Direct

MEASURE 4 RESULTS:
90% achieved this goal.

FINDINGS
Students are struggling with memorization and completion of paperwork in a timely manner.

TARGET LEVEL
Partially Met

OVERALL SUMMARY OF FINDINGS
Memorization is becoming more of a struggle for modern students; it is considered almost an epidemic in the theatre world and there are many articles addressing it as a concern.

The program Ready Now Yuma seems to have created the expectation for local students that work can be turned in "whenever" rather than on time.
ASSESSED IF YOU WOULD LIKE TO PROVIDE AN OVERALL SUMMARY OF YOUR FINDINGS FOR THE COURSE/PROGRAM /DEPARTMENT BEING ASSESSED.

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

student gain confidence through repetition of the scenes in class

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?

too much time has to be allowed for in class repetition

1. We will continue to explore methods of individual memory improvements

2. More scheduled rehearsal time will be arranged in class

REVAMP SERVICES

Planned Changes

OTHER

ADDITIONAL MEMORY BASED EXERCISES

currently researching

PERSON/ GROUP RESPONSIBLE FOR ACTION

Ann Wilkinson

TARGET DATE FOR IMPLEMENTATION OF THE ACTION

12/15/2018

PRIORITY

Medium

Course Outcome

Through written response and discussion, student will demonstrate knowledge of appropriate terminology, effective communication and aesthetic criticism of theatre performance/production.

AY 2017-2018

MEASURE 1:

Observe and submit a written response to assigned film or video performance

MEASURE 1 TYPE:

Direct

MEASURE 1 RESULTS:

100% submitted; 80% met the goals as expressed

MEASURE 2:

Watch and discuss film performance of The Seagull; discuss actor choices

MEASURE 2 TYPE:

Indirect
MEASURE 2 RESULTS: faculty observations

FINDINGS Students have difficulty

TARGET LEVEL ACHIEVEMENT Partially Met

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES? students do develop aesthetic response ability

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES? students tend to copy one another’s responses and are tentative

1. create rubric of terminology

OTHER provide additional student info

DESCRIBE CHANGES create terminology rubric

PERSON/ GROUP RESPONSIBLE FOR ACTION Ann Wilkinson

TARGET DATE FOR IMPLEMENTATION OF THE ACTION 11/01/2018

PRIORITY Medium

Course Outcome Utilizing written script analysis, the student will demonstrate an understanding of the craft of the actor.

AY 2017-2018

MEASURE 1: Written paper: 75 % will correctly identify the basic tenants of Constantin Stanislavski's theatrical method, observe a live theatrical performance and aesthetically discuss the tenants pertaining to the observed work.

MEASURE 1 TYPE: Direct

MEASURE 1 RESULTS: 98% submitted papers discussing observed work utilizing the proffered guidelines. 80% were well done

MEASURE 2: Written character analysis for personal scene and monologue work following guidelines set forth by Constantin Stanislavski

MEASURE 2 TYPE: Direct

MEASURE 2 RESULTS: 90% submitted thoughtful and timely paperwork 8% partial work 2% did not do the work
**MEASURE 3:** Small group Script work, including beats and action verbs  
**MEASURE 3 TYPE:** Direct  
**MEASURE 3 RESULTS:**  
- 100% completed the work for their final projects  
- 80% completed the work for monologues  
- 100% completed the in class work on The Seagull

**FINDINGS**  
satisfactory

**TARGET LEVEL ACHIEVEMENT**  
Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.*  
Further Action Unnecessary

**WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**  
the rubrics they are given and the in class exercises are clear

**WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**  
Students fear giving criticism of others even when read only by faculty; they need to use more terminology to remove onus

1. create a cheat sheet of terminology & more in class critiques

**RESTRUCTURE OUTCOME STATEMENT**  
Planned Changes

**DESCRIBE CHANGES**  
will create a cheat sheet of terminology

**PERSON/ GROUP RESPONSIBLE FOR ACTION**  
Ann Wilkinson

**TARGET DATE FOR IMPLEMENTATION OF THE ACTION**  
09/03/2018

**PRIORITY**  
Medium
THE 213 Assessment Plan Data

Course Outcome

Students will acquire knowledge regarding the history of children's theatre in education, production and literature.

AY 2017-2018

MEASURE 1:
Tests and quizzes over readings and lectures
MEASURE 1 TYPE:
Direct
MEASURE 1 RESULTS:
Pop quizzes did not fare well with this group of students; 50% scored C or lower
Written test over lecture material slightly better; but only when open notes allowed

MEASURE 2:
Open book tests over text book
MEASURE 2 TYPE:
Direct
MEASURE 2 RESULTS:
75% took and passed the first open book "quiz"
100% took and passed the 2nd test

MEASURE 3:
Review and Discussion of Arizona's Academic Standards for the Arts (Theatre)
MEASURE 3 TYPE:
Indirect
MEASURE 3 RESULTS:
Faculty observation of participation and opinion

FINDINGS
Mixed. the students who do the reading and take good notes fare pretty well.

TARGET LEVEL
Partially Met

WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
Those who do the readings and are alert during lectures begin to naturally link the development of TiE and Creative Drama to all children's theatre events

WHAT WEAKNESSES WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?
testing may cover too much information at once

1. Consider providing an outline for them to complete as the lectures about history are given
2. more quizzes which have narrower scope

OTHER
additional repetition and quizzes

OTHER
provide additional student info
Course Outcome

Students will demonstrate the ability to analyze scripts for content and appropriateness for children's theatre productions.

AY 2017-2018

MEASURE 1: Students will read four assigned plays and submit answers to rubric based on David Wood's guidelines for what makes a good play for children

MEASURE 1 TYPE: Direct

MEASURE 1 RESULTS:
- 100% completed 2 rubrics
- 25% completed 3 rubrics
- 75% completed 4 rubrics

MEASURE 2: Students will lead discussion of readings based on David Wood's rubric

MEASURE 2 TYPE: Indirect

MEASURE 2 RESULTS:
- Varying results based on the student; but 100% of the students lead discussions and participated in discussions with opinions and creative ideas

TARGET LEVEL ACHIEVEMENT: Met

1. Students seem to do better when I actually put a specific script into their hands rather than allowing them the freedom to choose. While I dislike this approach, I will assign specifics for at least the first two readings.

OTHER additional strictures

DESCRIBE CHANGES Less freedom of choice; more specific assigned reading/response required

PERSON/ GROUP RESPONSIBLE FOR ACTION Ann Wilkinson

TARGET DATE FOR IMPLEMENTATION OF THE ACTION 01/15/2019

PRIORITY Medium

Course Outcome Students will develop and refine proficiency in creating,
manipulating, and using creative dramatics techniques.

**AY 2017-2018**

<table>
<thead>
<tr>
<th>MEASURE 1:</th>
<th>Create and lead two 10-minute lessons.</th>
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<tbody>
<tr>
<td>MEASURE 1 TYPE:</td>
<td>Direct</td>
</tr>
<tr>
<td>MEASURE 1 RESULTS:</td>
<td>100% of students completed this aspect with varying results and degrees of understanding the first time. The second presentation was more structured and to the point. Students also more fully understood the purpose and were able to explain the purpose of the lesson with clarity.</td>
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<thead>
<tr>
<th>MEASURE 2:</th>
<th>Lead a 10-15 minute class activity.</th>
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<tbody>
<tr>
<td>MEASURE 2 TYPE:</td>
<td>Direct</td>
</tr>
<tr>
<td>MEASURE 2 RESULTS:</td>
<td>100% of students completed this exercise with varying degrees of competency.</td>
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</tbody>
</table>

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<tr>
<th>MEASURE 3:</th>
<th>Participate as role-players in other people's lessons and activities.</th>
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<tbody>
<tr>
<td>MEASURE 3 TYPE:</td>
<td>Indirect</td>
</tr>
<tr>
<td>MEASURE 3 RESULTS:</td>
<td>100% of students took part in the in-class lessons and activities.</td>
</tr>
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</table>

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<tr>
<th>MEASURE 4:</th>
<th>Students will adapt and perform a play based on a children's story or fairy tale.</th>
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<tbody>
<tr>
<td>MEASURE 4 TYPE:</td>
<td>Direct</td>
</tr>
<tr>
<td>MEASURE 4 RESULTS:</td>
<td>100% of students took part in the process and performed the resulting piece of work in various locations for differing audiences.</td>
</tr>
</tbody>
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**TARGET LEVEL ACHIEVEMENT**

Met

**WHAT STRENGTHS WERE DISPLAYED THROUGH THE ASSESSMENTS OF YOUR MEASURES?**

The process of adapting and performing the play offers great opportunity to compare audiences and to experience levels of childhood engagement and learning processes.

**ADDITIONAL COMMENTS:**

This year's production was performed on three separate occasions for 20 preschoolers, 600 middle schoolers and 200 parents and children at the Military Ball. The variety of audiences gave rise to very interesting discussions.

2. Provide several more rubrics and examples prior to first presentation. Currently providing two, but that was not enough of a spectrum for this group to clearly grasp tailoring for age groups.

**OTHER**

none

**OTHER**

provide additional student info

**DESCRIBE CHANGES**

Provide several more rubrics

**PERSON/ GROUP**

Ann Wilkinson
RESPONSIBLE FOR ACTION

TARGET DATE FOR IMPLEMENTATION OF THE ACTION  01/15/2019

PRIORITY  Medium

Course Outcome  Students will understand fundamental theoretical and pedagogical underpinnings for creative dramatics

AY 2017-2018

MEASURE 1:  Respond periodically to Blackboard discussion questions.
MEASURE 1 TYPE:  Direct
MEASURE 1 RESULTS:  80% fulfilled this requirement

MEASURE 2:  Submit written lesson plans for all workshop, lesson, and activity assignments. Discuss select reading material in class.
MEASURE 2 TYPE:  Direct
MEASURE 2 RESULTS:  100% completed to varying levels

MEASURE 3:  As a group, create a "teacher's packet" to accompany the adapted play created by the class. To be provided to the teachers of the children in attendance. Booklet to include rules of theatre etiquette; additional learning ideas, activities that illustrate elements of the play, etc. appropriate to the assigned age group. Every student must submit at least one item for the booklet and a unified approach must be maintained.
MEASURE 3 TYPE:  Direct
MEASURE 3 RESULTS:  100% contributed to and compiled a booklet

FINDINGS  The peer pressure of group work is a plus

TARGET LEVEL ACHIEVEMENT  Partially Met

*IF LESS THAN MET, PROGRAM SHOULD PLAN FURTHER ACTION TO IMPROVE PERFORMANCE.

1.  Need to be more consistent and clear with online questions and have a set cut off for both date and response time

OTHER

none

OTHER

stronger deadlines

PERSON/ GROUP RESPONSIBLE FOR ACTION  Ann Wilkinson

https://azwestern.tk20.com/campustoolshighered/jsp/k12/reports/_6efe57...
| **TARGET DATE FOR IMPLEMENTATION OF THE ACTION** | 05/15/2019 |
| **PRIORITY** | **Medium** |