

GENERAL EDUCATION AND ASSOCIATE OF ARTS DEGREE ANNUAL REPORT

Assessment Results: 2014 - 2015



Office of Institutional Research and Effectiveness
Palm Beach State College

Table of Contents

Executive Summary	3
The Purpose of General Education Assessment.....	3
The SACSCOC General Education Standards.....	4
Outcomes	4
General Education Learning Outcomes.....	4
Institutional Learning Outcomes.....	5
The General Education Assessment Process.....	5
Instruments	6
Historical Context for Current Assessment Instruments	7
2014-2015 Results	9
Course Embedded Assessment.....	9
Communications.....	9
Humanities.....	11
Mathematics.....	13
Natural Sciences.....	15
Social Sciences.....	17
Scenarios	18
Graduating Student Survey.....	20
Program Assessment that Supports General Education and the Associates of Arts Degree.....	22
Gordon Rule.....	24
Using the Results.....	24
Improving the Data Collection Process for Embedded Assessment Results	25
Additional Measures	26
Improving Understanding of the Gordon Rule Guidelines	26
Future Directions.....	27
References	27
Appendix A. General Education Philosophy.....	29
Appendix B. Course Learning Outcomes Assessed.....	31
Area I – Communications.....	32
Area II – Humanities	32
Area III – Mathematics	34
Area IV – Natural Sciences.....	35
Area V – Social Sciences	38
Appendix C. Sample Rubrics	40
Appendix D. Embedded Assessment Results by Course.....	44
Appendix E. Gordon Rule Statement	74

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Executive Summary

Palm Beach State College is engaged in a regular cycle of outcomes assessment for the purpose of continuous improvement in the general education program. Five student learning outcomes, one for each major area of general education (Communication, Humanities, Mathematics, Natural Science, Social Sciences) and four institutional learning outcomes (Critical Thinking, Ethics, Global Awareness, Information Literacy) are measured in this effort. The process is becoming mature as more faculty are becoming involved in evaluating results and developing improvement strategies. Three measures were included in the 2014-2015 cycle: scenario responses for the institutional outcomes, the Graduating Student Survey for all outcomes, and course embedded assessment for the general education outcomes.

Scenarios were administered to measure the four institutional outcomes in a random sample of classes College-wide to 373 students, and responses were scored with 5-point rubrics by faculty on the Assessment Committee. Average scores for these four outcomes were between 2.7 and 2.9 with three-year trends varying depending on the outcome.

The Graduating Student Survey was available via an emailed link to all graduating students; the number of respondents varied for the outcomes but ranged from 560 to 569. Most of the students self-reported their belief that the College had done much to increase their achievement in each of the outcomes, with average ratings for the outcomes ranging from 4.2 and 4.4 (5-point scale where 5 is the highest rating).

Course embedded assessment was developed and administered by faculty in all general education classes. This was the second iteration of this measure. Using results from the first iteration of course embedded assessment, faculty established benchmarks for each course. Class results are aggregated for every course, and course results are aggregated for each general education outcome. The benchmark was met or exceeded for all five general education outcomes.

Additionally, as all career programs at the College identify which of the nine outcomes are supported by the Program Learning Outcomes (PLOs), it is also noted that in 79.6% of PLOs that support at least one of the general education or institutional outcomes, students met or exceeded the benchmark.

The following report includes an overview of the purpose of and process for general education assessment and provides the historical context for that process with an explanation of the measures. Some results are provided in the narrative of the report, with finer details and additional information presented as appendices.

The Purpose of General Education Assessment

Assessment offers clarity for both the educator and the student. At its best and put simply, assessment provides the means to clearly identify what should happen and the measures to articulate what did happen. In education, assessment is a tool that helps faculty and administrators communicate expectations for learning to each other, to students, and to external interests such as the community

and accreditors. Further, it is a way to communicate whether or not stated expectations have been met and the degree to which learning has occurred. Communicating expectations of learning, measuring how well learning is taking place, reviewing the results, and revising instruction as needed is sound teaching (Angelo & Cross, 1993; Maki, 2004; Suskie, 2009).

The SACSCOC General Education Standards

Assessment of general education is good practice, but it is also a requirement for regional accreditation. Specifically, the College is regionally accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), and must comply with Core Requirements and Comprehensive Standards. Two standards in particular address aspects of general education that are covered by this report. The first requires that a college's general education program "ensures breadth of knowledge and...is based on a coherent rationale" (CS 2.7.3). This standard also requires that general education provide a program of study that includes coursework in humanities and fine arts, social and behavioral sciences, natural sciences, and mathematics. The College complies with this standard as its general education programs is divided into five areas (Communication, Humanities, Mathematics, Natural Science, and Social Science) and offers a variety of courses within each area.

The second SACSCOC standard related to general education requires colleges to identify "college-level competencies and the extent to which students have attained them." (CS 3.5.1).¹ The College complies with this standard through ongoing implementation and review of learning outcomes assessment; this annual report addresses the 3.5.1 standard. Annual reporting on Comprehensive Standards is not required by SACSCOC, but it affords the College an opportunity to reflect on the process and to review and present the results.

Outcomes

The College has five general education learning outcomes that align directly to its five general education areas. Additionally, four institutional learning outcomes speak to a broader scope of learning that have been deemed equally important to degree attainment. These nine outcomes are listed below.

General Education Learning Outcomes

Communication:	Demonstrate effective communication skills for a variety of audiences.
Humanities:	Demonstrate an awareness of and an ability to effectively analyze creative works.
Mathematics:	Demonstrate an understanding of mathematical concepts to solve real-world problems.
Natural Sciences:	Demonstrate comprehension of fundamental concepts, principles or processes about the natural world.

¹ Excerpts from the current version (2012) of *The Principles of Accreditation: Foundations for Quality Enhancement*, retrieved from <http://www.sacscoc.org/pdf/2012PrinciplesOfAccreditation.pdf> (CS 2.7.3, page 19; CS 3.5.1, page 29)

Social Sciences: Understand and apply sociological, cultural, political, psychological, historical and economic principles to a global environment.

Institutional Learning Outcomes

Critical Thinking: Engage in purposeful reasoning to reach sound conclusions.

Ethics: Demonstrate the ability to make informed decisions based on ethical principles and reasoning.

Global Awareness: Exhibit a sense of social, cultural and global responsibility.

Information Literacy: Demonstrate the ability to find, evaluate, organize and use information.

The General Education Assessment Process

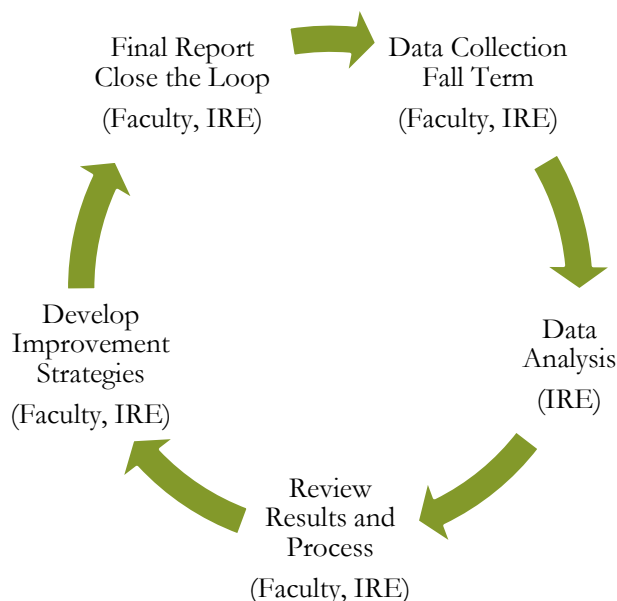
It is important to remember that assessment is an ongoing and evolutionary process, not an event that occurs in isolation. Learning outcomes were integrated into the general education assessment process in 2009, and in the years since then, improving the measurement of those outcomes has become an increasingly collaborative effort between faculty, staff, and administrators. While the assessment process continues to take shape, the approach remains holistic. The philosophy is that general education as a program should provide students with a “depth and breadth of learning that transcends the content of any one specific discipline.”²

Measuring general education requires an examination of how each general education course helps students acquire the skills and knowledge that are necessary for the discipline, but it also requires the results to be aggregated to consider how the courses together contribute to the program of general education. Additionally, the assessment process itself must be assessed. This report serves as a venue for both reporting assessment results and assessing the assessment process. Figure 1 illustrates this process.

Assessment in general education courses is administered each fall semester. Results are compiled by the Office of Institutional Research and Effectiveness (IRE) and reviewed by faculty in the spring when improvement strategies are developed as needed. Additionally, ongoing assessment occurs in programs outside of general education; in this case, programs measure learning outcomes that support the general education outcomes, reporting the results in the spring with a full review in the fall to develop improvement strategies. Every faculty member who teaches a general education course is in some way involved in the assessment process.

² Excerpt from the Palm Beach State College General Education Philosophy Statement (Appendix A).

Figure 1: The Palm Beach State College General Education Assessment Process



Instruments

Direct measures in the 2014-2015 cycle included embedded assessment in both general education courses and academic programs to measure the general education learning outcomes and faculty-developed scenarios that measure the institutional outcomes. These measures and their use have evolved over time. Additionally, student responses on the *Graduating Student Survey* are included annually including the current cycle.

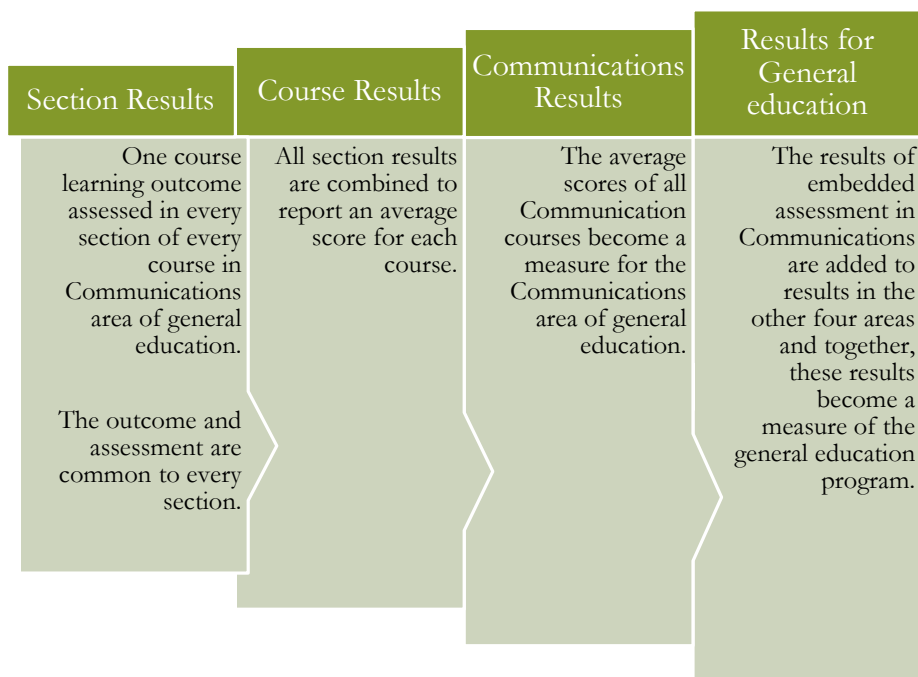
Scenarios were first introduced in 2009 to supplement a standardized test, the *ETS Proficiency Profile* (formerly the *Measure of Academic Proficiency and Progress* or *MAPP*), both of which were administered by proctors to a randomly selected sample of students. Scenarios continue to be administered to a random sample, but in the fall of 2013, course embedded assessment replaced the *ETS Proficiency Profile*. Program assessment that supports general education has been in effect for several years but is added as a measure for general education as a program for the first time this cycle.

General education course-embedded assessment is a common assessment at the course level, selected by faculty who teach the course, and it is currently administered by faculty in every section of every course in the general education program. The move toward embedded assessment resulted to mitigate the issue of student motivation. Specifically, when standardized tests and scenarios are administered, they become an add-on not included in student grades. As a result, few students are motivated to give their best effort.

It is expected that if assessment for general education is integrated into the expectations of coursework that the results better capture the broad scope of knowledge expected as outcomes of the general education program. These results then better represent the effectiveness of the general education

courses than the previous standardized assessments and, taken together, the results become a measure of the effectiveness of general education as a program.

Figure 2. Use of Embedded Assessment – example taken from the Communications Area to illustrate how embedded assessment is used as a measure of the general education program



Historical Context for Current Assessment Instruments

The General Education Assessment Committee was first convened in 2009. This committee of mainly faculty members were tasked with revising the assessment plan for the general education program to incorporate the measurement of newly developed learning outcomes; scenarios were written and the *Measure of Academic Proficiency and Progress, MAPP*, was adopted. Other measures included the *College Level Academic Skills Test, CLAST*; the *Community College Survey of Student Engagement, CCSSE*; course grades, and the *Graduating Student Survey*. CCSSE is still included in some cycles, and the *Graduating Student Survey* results are still included annually, both as indirect, self-reported measures.

The new plan was implemented successfully, and for three years, ongoing assessment, review, and annual revisions to improvement strategies became the regular assessment cycle. Discussions about how to address student motivation within the assessment process remained persistent during this period. In the fall semester of 2012, a full evaluation by the General Education Committee of the general education philosophy, broad areas that comprised the program, learning outcomes and assessment prompted the scheduling of faculty forums that resulted in the following steps.

- January and February 2013 – faculty on each campus participated in early-term forums to discuss potential revisions to general education assessment.

- Outcomes were revised to better represent the broad scope of skills students should attain in each of five general education areas and embedded assessment was selected as a new measure
 - Changes were promptly communicated to all faculty with additional opportunities for them to give input.
- March 2013 – faculty worked in disciplines on Academic Development Day to select one course learning outcome to assess in each general education course.
 - Fall 2013 – faculty collaborated at the course level in August to select assessments to measure the previously selected course learning outcome; assessment instruments in each course for the general education area could be different, but all sections of any one course were expected to be common.
 - Fall 2013 – by end of term, faculty administered their common assessments for the first time, submitting a copy of the assessment to the Office of institutional Research and Effectiveness (IRE); every faculty member who taught a general education course was expected to administer the common assessment and use an online utility to report findings to IRE.
 - Spring 2013 – staff in IRE compiled the results and prepared a report to be shared with faculty.

The expectation was that embedded assessment would provide a variety of measures for each general education learning outcome and better address the issue of student motivation when it was initially implemented in the fall 2013 semester. However, when preparing to share the results with faculty, the general education committee reviewed the assessment instruments and results in the spring semester of 2014, and two challenges quickly emerged. First, the quality of assessment instruments was very different from one course to another, and second, the results had not been consistently reported. To resolve these issues, faculty members were asked to work in clusters later that semester to improve assessment instruments, and IRE staff began to revise the data collection process to simplify the process and reduce the workload for faculty.

With an increase in faculty involvement and collaboration, additional faculty were recruited for the assessment committee and a faculty chair was added. When the second iteration was completed in the fall 2014 semester, findings were compiled by IRE staff and distributed to all faculty for their review. This time, however, faculty-led discussions were scheduled on each campus in February specifically for the purpose of discussing the results and process. Additional discussions were conducted in March in which faculty provided recommended benchmarks and developed improvement strategies where needed, reporting both to the IRE office. It is the results of both the second iteration and the conversations that followed that form the basis for improvement strategies later in this report.

In addition to the evolution of embedded assessment as an additional instrument, the use of scenarios has changed over time. Originally, a separate scenario was administered for each of the general

education outcomes. When those outcomes were revised in 2013 and were being measured by a variety of instruments for each outcome with embedded assessment, scenarios were only administered to measure the institutional learning outcomes for critical thinking, ethics, global awareness, and information literacy.

2014-2015 Results

Course Embedded Assessment

To demonstrate competency in general education using embedded assessment as a measure, two benchmarks are employed. First, students in each area, namely Communications, Humanities, Mathematics, Natural Sciences, and Social Sciences, will meet the course benchmark for at least 80% of the courses in the respective area. Second, students will meet the benchmark in at least 90% of all general education courses combined. This was accomplished in 2014-2015 as follows:

- Communications: 100% of courses assessed (6 out of 6) met the benchmark.
- Humanities: 95.5% of courses assessed (21 out of 22) met the benchmark.
- Mathematics: 84.6% of courses assessed (11 out of 13) met the benchmark.
- Natural Sciences: 96.2% of courses assessed (25 out of 26) met the benchmark.
- Social Sciences: 100% of courses assessed (11 out of 11) met the benchmark.
- All general education courses combined: Students in 94.9% courses assessed (74 out of 78) met the benchmark.

In this section, a summary for each area provides the general education outcome, the courses included in that area, and a brief description of the assessments selected. The information is presented by the general education area. In some cases, a course in a particular area was not offered the semester during which embedded assessment was administered. Such courses will be listed in the general education area but will not be included in the table with results not counted toward the percentage of courses for which the benchmark was or was not achieved. Additionally, results are only published in this report if the course was taught by at least two faculty members.

Results presented in Tables 1-5 include the number of valid scores reported, average scores, targeted scores, and the percent of student in each course who achieved the target score or higher. Outcomes assessed for each course (Appendix B), sample assessments (Appendix C), and results with frequency distributions with faculty-recommended benchmarks (Appendix D) provide additional information about the embedded assessment process and results.

Communications

General Education Learning Outcome for Communications

Demonstrate effective communication skills for a variety of audiences.

Courses in the Communications Area

ENC 1101 College Composition 1

ENC 1121 Honors College Composition 1

ENC 1102	College Composition 2
ENC 1122	Honors College Composition 2
ENC 1141	Writing About Literature
SPC 1017	Fundamentals of Speech Communication

Communications Assessments

In the composition courses, including Writing about Literature, faculty members used a common rubric to grade individually selected writing assignments. In all cases, students were asked to demonstrate effective writing skills and were scored on a 5-point scale; a score of 1 is unacceptable and a score of 5 is exemplary. Students were required to use proper tone and support in their writing, meet the needs of a specific audience, and integrate and cite scholarly sources. Speech faculty focused on measuring students' abilities to manage communication anxiety as demonstrated while presenting a classroom assignment. Students were required to demonstrate control and effective nonverbal communication and to consistently appear natural and purposeful during the presentation. Faculty used a common 10-point rubric to assess the presentations with a range of scores; on this rubric, 0-2 is unacceptable, and 9.5-10 is excellent.

The benchmark for competency in the Communications Area is that at least 70% of courses meet the established benchmark for the course learning outcome that supports the general education learning outcome for Communications. That benchmark was met in the 2014-2015 cycle as 100% of courses met the course benchmark. Table 1 provides the average scores and number of students assessed for each course in the Communications Area.

Table 1. Results of Embedded Assessment in Communications (all courses in Communications were offered in the 2014-2015 assessment cycle; see Appendix D for benchmarks)

Course	n (valid scores)	Average Score	Target out of Possible Points	% Scores at Target or Above
ENC 1101 (College Composition 1)	2855	3.69	3/5	87.18%
ENC 1121 (Honors College Composition 1)	*	*	3/5	*
ENC 1102 (College Composition 2)	1398	3.73	3/5	88.34%
ENC 1122 (Honors College Composition 2)	15	4.73	3/5	100%
ENC 1141 (Writing about Literature)	39	4.44	3/5	94.87%
SPC 1017 (Fundamentals of Speech Communication)	2274	3.70	3/5	89.05%
Communications courses assessed	6			
Communications courses that met benchmark	6			
Percent Communications courses that met benchmark	100%			

**Specific results not published; course taught by only one faculty member during data collection period*

Humanities

General Education Learning Outcome for Humanities

Communicate awareness of and demonstrate effective skills in the analysis of creative works.

Courses in the Humanities Area

AML 2010	American Literature to 1865
AML 2020	American Literature after 1865
AML 2600	African American Literature
AML2631	Hispanic American Literature
AML 2660	Jewish American Literature
ENL 2012	English Literature before 1800
ENL 2022	English Literature after 1800
LIT 1000	Introduction to Literature
LIT 2050	Survey of Literary Humor
LIT 2370	The Bible as Literature
LIT 2090	Contemporary Literature
LIT 2110	World Literature before the Renaissance
LIT 2120	World Literature after the Renaissance
LIT 2190	Introduction to Afro-Caribbean Literature
LIT 2380	Women in Literature
ARH 1000	Art Appreciation
ARH 2050	Art History: Ancient to Renaissance
ARH 2051	Art History: Renaissance to Contemporary
FIL 2000	Film Appreciation
MUH 2018	History and Appreciation of Jazz
MUL 1010	Music Appreciation
MUT 1001	Fundamentals of Music
THE 1000	Theatre Appreciation
PHI 1010	Introduction to Philosophy

Humanities Assessments

The Humanities Areas includes courses in literature, fine arts, and philosophy. In the literature courses, a common 5-point rubric was used in every course to assess the same course outcome, specifically, “Analyze the characteristics of a particular literary work”. Students were required to demonstrate their analysis and interpretation skills, and scores on the rubric ranged from one (unacceptable) to five (exemplary).

In each of the three art courses, a common assignment was developed that required students to describe the application of art elements, principles, balance, and design in selected art work. A different composition was selected for each course, but common criteria were scored with a 100-point rubric (scores of 0, 25, 50, 75, 100) that assessed the students’ abilities to complete the assignment.

Film appreciation students were required to submit a detailed, 1200-word analysis in MLA format. A common 100-point rubric was used to measure several components including thesis, development, cohesion, and conventions. Similarly, theatre students were required to submit an analysis paper. Faculty members used a 25-point rubric to measure common criteria including descriptive and prescriptive criticism, the playwriting process, and challenges of acting.

Music faculty developed ten multiple choice questions for each of the three courses to assess students' general knowledge about the respective course. Questions were designed to cover a variety of topics that appropriately address the course content. The selected questions were administered as part of various assignments or assessments throughout the semester or all at once as a single assignment or assessment, at the discretion of each instructor. However, in all cases, the administration of the embedded questions was part of graded work. In the two appreciation courses, a 20-point scale was used; in Fundamentals of Music, faculty used a 10-point scale.

In the philosophy course, students were required to complete a written assignment to demonstrate the degree to which they had achieved one of the course outcomes as measured by a 5-point rubric adapted from the College's critical thinking rubric. The outcome selected for this purpose is "Demonstrate the ability to philosophize and form stances on critical issues relating to the nature of the universe and man's place in it." Clearly, this outcome does not map to the humanities outcome which expects students to "Communicate awareness of and demonstrate effective skills in the analysis of creative works." The misalignment exists because the course was in the Social Sciences area when embedded assessment was being developed, and the course learning outcome was selected based on the association with the Social Sciences outcome. Philosophy was moved to Humanities in 2014-2015, but the assessment was not revised. Accordingly, the explanation and results are provided in this section to align with the catalog placement of Humanities, but the results are counted toward the number of courses in Social Sciences that met the benchmark, not Humanities.

The benchmark for competency in the Humanities Area is that at least 70% of courses meet the established benchmark for the course learning outcome that supports the general education learning outcome for Humanities. That benchmark was met in the 2014-2015 cycle as 95% (21/22 assessed) of courses met the course benchmark. Table 2 provides the average scores and number of students assessed for each course in the Humanities Area.

Table 2. Results of Embedded Assessment in Humanities (courses not offered during fall term were not included this cycle and are not listed in table; see Appendix D for benchmarks)

Course (grouped by Literature and Fine Arts)	n (valid scores)	Average Score	Target out of Possible Points	% Scores at Target or Above
AML 2010 (American Literature to 1865)	274	3.73	3/5	83.58%
AML 2020 (American Literature after 1865)	354	3.97	3/5	94.07%
AML 2600 (African American Literature)	30	3.83	3/5	93.33%

AML 2660 (Jewish American Literature)	*	*	3/5	*
ENL 1012 (English Literature before 1800)	80	4.44	3/5	96.25%
ENL 2022 (English Literature after 1800)	91	3.88	3/5	96.70%
LIT 1000 (Introduction to Literature)	69	3.43	3/5	78.26%
LIT 2050 (Survey of Literary Humor)	*	*	3/5	*
LIT 2370 (The Bible as Literature)	53	3.89	3/5	90.57%
LIT 2090 (Contemporary Literature)	236	4.06	3/5	88.98%
LIT 2110 (World Literature before the Renaissance)	49	3.43	3/5	63.27%
LIT 2120 (World Literature after the Renaissance)	41	3.93	3/5	87.80%
LIT 2190 (Introduction to Afro-Caribbean Literature)	*	*	3/5	*
LIT 2380 (Women in Literature)	126	3.48	3/5	80.95%
ARH 1000 (Art Appreciation)	605	85.29	75/100	87.60%
ARH 2050 (Art History: Ancient to Renaissance)	24	87.50	75/100	94.67%
ARH 2051 (Art History: Renaissance to Contemporary)	31	81.45	75/100	77.42%
FIL 2000 (Film Appreciation)	181	57.1	70/100	50.28%
MUH 2018 (History and Appreciation of Jazz)	61	16.98	13/20	85.25%
MUL 1010 (Music Appreciation)	386	13.74	13/20	65.03%
MUT 1001 (Fundamentals of Music)	45	7.42	7/10	75.56%
THE 1000 (Theatre Appreciation)	344	20.20	18/25	78.20%
Humanities courses assessed	22			
Humanities courses that met benchmark	21			
Percent Humanities courses that met benchmark	95.5%			
Course (Philosophy)	n (valid scores)	Average Score	Target out of Possible Points	% Scores at Target or Above
PHI 1010 (Introduction to Philosophy)	58	3.55	4/5	58.62%
<i>Note: PHI 1010 assessed an outcome which supports Social Sciences as previously designated. Results are shown here but are counted toward courses that met the benchmark in Social Sciences.</i>				

**Specific results not published; course taught by only one faculty member during data collection period*

Mathematics

General Education Learning Outcome for Mathematics

Apply mathematical principles, problem solving techniques, critical thinking and logical reasoning to demonstrate an understanding of mathematical concepts and to solve real-world problems.

Courses in the Mathematics Area

MAC 1105 College Algebra

MAC 1114 Trigonometry

MAC1140 Precalculus

MAC 1147	Precalculus and Trigonometry
MAC 2233	Survey of Calculus
MAC 2311	Calculus with Analytic Geometry 1
MAC 2312	Calculus with Analytic Geometry 2
MAC 2313	Calculus with Analytic Geometry 3
MAP 2302	Differential Equations
MAS 2103	Linear Algebra
MGF 1106	Liberal Arts Mathematics
MGF 1107	Finite Mathematics
STA 2023	Statistics

Mathematics Assessments

In all Mathematics courses, selected assessments required students to apply course-related principles, techniques, and reasoning to solve mathematical problems. All assessments included three to five multi-step problems, and one course (Liberal Arts) included multiple choice responses. The benchmark for competency in the Mathematics Area is that at least 70% of courses meet the established benchmark for the course learning outcome that supports the general education learning outcome for Mathematics. That benchmark was met in the 2014-2015 cycle as 85% (11/13 assessed) of courses met the course benchmark. Table 3 provides the average scores and number of students assessed for each course in the Mathematics Area.

Table 3: Results of Embedded Assessment in Mathematics (courses not offered during fall term were not included this cycle and are not listed in table; see Appendix D for benchmarks)

Course	n (valid scores)	Average Score	Target out of Possible Points	% Scores at Target or Above
MAC 1105 (College Algebra)	1984	2.75	3/5	57.76%
MAC 1114 (Trigonometry)	207	1.49	2/3	48.31%
MAC 1140 (Precalculus)	318	2.11	2/3	75.47%
MAC 1147 (Precalculus Algebra and Trigonometry)	57	1.79	2/3	54.39%
MAC 2233 (Survey of Calculus for Business Majors)	361	1.78	2/3	60.39%
MAC 2311 (Calculus with Analytic Geometry 1)	199	2.53	3/5	51.26%
MAC 2312 (Calculus with Analytic Geometry 2)	128	1.63	2/3	50.78%
MAC 2313 (Calculus with Analytic Geometry 3)	65	1.45	3/5	21.54%
MAP 2302 (Differential Equations)	32	1.75	2/3	56.25%
MAS 2103 (Linear Algebra)	*	*	2/3	*
MGF 1106 (Liberal Arts Mathematics)	464	2.40	2/3	83.41%
MGF 1107 (Finite Mathematics)	85	1.81	2/3	55.29%
STA 2023 (Statistics)	597	1.65	2/3	55.11%
Mathematics courses assessed	13			

Mathematics courses that met benchmark	11	
Percent Mathematics courses that met benchmark	84.6%	

**Specific results not published; course taught by only one faculty member during data collection period*

Natural Sciences

General Education Learning Outcome for Natural Sciences

Demonstrate comprehension of fundamental concepts, principles, or processes about the natural world.

Courses in the Natural Sciences Area (excluding labs)

AST 1002	Descriptive Astronomy
AST 1003	Planetary Astronomy
AST 1004	Stellar and Galactic Astronomy
BOT 1010	General Botany
BSC 1005	Concepts of Biology (Non-Science Major)
BSC 1010	Principles of Biology 1
BSC 1011	Principles of Biology 2
BSC 2085	Anatomy and Physiology 1
BSC 2086	Anatomy and Physiology 2
BSC 2421	Introduction to Biotechnology
CHM 1025	Introduction to Chemistry
CHM 1032	Principles of Chemistry
CHM 1045	General Chemistry 1
CHM 1046	General Chemistry 2
ESC 1000	Earth Science
EVR 1001	Introduction to Environmental Science
GLY 1000	Descriptive Geology
HSC 1101	Contemporary Issues in Health
HSC 2100	Health Concepts and Strategies
HUN 1201	Elements of Nutrition
MCB 2010	Microbiology
OCE 1001	Introduction to Oceanography
PHY 1001	Applied Physics
PHY 2048	General Physics with Calculus 1
PHY 2049	General Physics with Calculus 1
PHY 2053	General Physics 1
PHY 2054	General Physics 2
PSC 1341	Physical Science for Today's World

Natural Science Assessments

Natural Sciences is comprised of courses in physical science, biological science, health, and nutrition. In all cases except for the health courses, faculty constructed common assessments that consisted of five or six questions. In these courses, correct answers earned students one point each for a total of five or six possible points. In the two health courses, faculty developed common assignments. In Contemporary Issues in Health (HSC 1101), students were required to complete a research project and was scored with a common 50-point rubric which measured multiple components of the project including creativity and originality, ability to draw meaningful conclusions, and thoroughness of presentation. In Health Concepts and Strategies (HSC 2100), students were required to perform a self-evaluation that included the application of core course concepts. Faculty scored the assignment using common criteria and a 100-point scale.

The benchmark for competency in the Natural Sciences Area is that at least 70% of courses meet the established benchmark for the course learning outcome that supports the general education learning outcome for Natural Sciences. That benchmark was met in the 2014-2015 cycle as 96% (25/26 assessed) of courses met the course benchmark. Table 4 provides the average scores and number of students assessed for each course in the Mathematics Area.

Table 4: Results of Embedded Assessment in Natural Sciences (courses not offered during fall term were not included this cycle and are not listed in table; see Appendix D for course benchmarks)

Course	n (valid scores)	Average Score	Target out of Possible Points	% Scores at Target or Above
AST 1002 (Descriptive Astronomy)	122	4.06	3/5	92.6%
BOT 1010 (General Botany)	*	*	3/5	*
BSC 1005 (Concepts of Biology-Non-Science Majors)	245	3.69	3/5	81.2%
BSC 1010 (Principles of Biology 1)	494	4.15	3/5	95.1%
BSC 1011 (Principles of Biology 2)	123	4.31	3/5	98.4%
BSC 2085 (Anatomy & Physiology 1)	1014	3.99	2.5/5	84.9%
BSC 2086 (Anatomy & Physiology 2)	542	3.99	2.5/5	85.4%
BSC 2421 (Introduction to Biotechnology)	*	*	4/5	*
CHM 1025 (Introductory Chemistry)	112	2.89	3/5	62.5%
CHM 1032 (Principles of Chemistry)	370	3.60	3/5	81.9%
CHM 1045 (General Chemistry 1)	340	2.89	3/5	57.4%
CHM 1046 (General Chemistry 2)	131	3.69	3/5	77.9%
ESC 1000 (Earth Science)	958	3.87	3/5	90.1%
EVR 1001 (Introduction to Environmental Science)	227	5.11	3/5	99.1%
GLY 1000 (Descriptive Geology)	118	4.19	3/5	89.8%
HSC 1101 (Contemporary Issues in Health)	95	42.08	30/50	91.6%
HSC 2100 (Health Concepts and Strategies)	1516	86.73	70/100	90.2%

HUN 1201 (Elements of Nutrition)	998	3.47	3/5	76.4%
MCB 2010 (Microbiology)	416	4.42	3/5	95.4%
OCE 1001 (Introduction to Oceanography)	170	3.65	3/5	80.0%
PHY 1001 (Applied Physics)	59	2.95	3/5	57.6%
PHY 2048 (General Physics with Calculus 1)	91	2.56	3/5	61.5%
PHY 2049 (General Physics with Calculus 2)	51	2.39	3/5	47.1%
PHY 2053 (General Physics 1)	49	2.45	3/5	59.2%
PHY 2054 (General Physics 2)	*	*	3/4	*
PSC 1341 (Physical Science for Today's World)	29	3.55	3/5	89.7%
Natural Sciences courses assessed	26			
Natural Sciences courses that met benchmark	25			
Percent Natural Sciences courses that met benchmark	96.2%			

**Specific results not published; course taught by only one faculty member during data collection period*

Social Sciences

General Education Learning Outcome for Social Sciences

To understand and apply sociological, cultural, political, psychological, historical and economic principles to a global environment.

Courses in Social Sciences Area

AMH2010	US History to 1865
AMH2020	US History from 1865 to Present
ANT2000	Anthropology
ECO2013	Principles of Macroeconomics
GEA1000	Principles of Geography and Conservation
POS 1001	Introduction to Political Science
POS 1041	Introduction to American Government
POS 2112	American State and Local Government
PSY2012	General Psychology
SYG1230	American Minorities Today
SYG2000	Introduction to Sociology
SYG2010	American Social Problems

Social Sciences Assessments

All courses in this area are currently assessed with a multiple choice questions that are given either as a separate quiz or as embedded questions on a test. Faculty in each course selected five or six common questions to assess their specific outcomes.

Table 5: Results of Embedded Assessment in Social Sciences (courses not offered during fall term were not included this cycle and are not listed in table; see Appendix D for course benchmarks)

Course	n (valid scores)	Average Score	Target out of Possible Points	% Scores at Target or Above
AMH 2010 (US History to 1865)	589	3.72	3/5	87.3%
AMH 2020 (US History from 1865 to Present)	338	3.24	3/5	80.7%
ANT 2000 (Anthropology)	117	5.68	4/6	94.02
ECO 2013 (Principles of Macroeconomics)	513	3.53	3/5	85.4%
GEA 1000 (Principles of Geography and Conservation)	*	*	8/10	*
POS 1001 (Introduction to Political Science)	415	3.54	3/5	75.9%
POS 1041 (Introduction to American Government)	730	3.38	3/5	71.8%
PSY 2012 (General Psychology)	1372	4.12	3/5	88.3%
SYG 2000 (Introduction to Sociology)	755	4.11	3/5	92.6%
SYG 2010 (American Social Problems)	65	4.09	3/5	96.9%
<i>PHI 1010 (Introduction to Philosophy) – part of Humanities in 2014-2015 but assessed a Social Sciences outcome, so counted here for this cycle</i>	58	3.55	4/5	58.6
Social Sciences courses assessed	11			
Social Sciences courses that met benchmark	11			
Percent Social Sciences courses that met benchmark	100%			

**Specific results not published; course taught by only one faculty member during data collection period*

Scenarios

Scenarios, as previously described, were first developed in 2009 and subsequently reviewed and refined annually by faculty on the General Education Assessment Committee (the Committee). Currently, scenarios are used as measures for critical thinking, ethics, information literacy, and global awareness as students are required to respond in writing to a faculty-developed situation that addresses these outcomes. In the 2014-2015 cycle, scenarios were administered to 372 students in 17 classes that were randomly selected from courses in which the mean number of credits completed by students in the class was at least 35 credits. The minimum number for the mean completed credits exists to maximize the probability that students in the sample have fulfilled most if not all of their general education course requirements for the associate of arts (AA) degree.

Scenarios were scored with rubrics by teams of two or three faculty on the Committee with each team scoring scenarios for only one of the outcomes. Holistic rubrics for ethics and global awareness are both 5-point rubrics where a score of one means the response needs improvement, and a score of five means the response is exemplary. The critical thinking rubric was developed for the College Quality Enhancement Plan (QEP) to measure three learning outcomes, and as such, is

an analytic rubric yielding a total score from three sub-scores. In information literacy, the assessment requires both an essay response (14 points) and answers to 36 multiple-choice questions (one point each). Students can earn up to 50 points on the information literacy scenario, but scores are converted to a 5-point scale for the purpose of comparative analysis and evaluation.

To maximize inter-rater reliability, faculty teams participated in a pre-scoring workshop to discuss the rubrics and intent of each score and to calibrate how rubric values would be applied to student responses to each scenario. Table 6 summarizes the results of scenario scores in this cycle, and Figures 3-5 provide comparisons of students by degree (AA, AS, BAS, and other), learning modality (classroom and distance learning), and year (2012, 2013, 2014).

Table 6: Scenarios Sores Fall 2014

Outcome	n	Average Score	Percent Scored 1 and 2	Percent Scored 3	Percent Scored 4 and 5
Critical Thinking	83	2.9	53.3% (n=44)	32.2% (n=27)	14.4% (n=12)
Ethics	90	2.8	55.2% (n=50)	22.9% (n=21)	21.9% (n=20)
Global Awareness	103	2.7	56.6% (n=58)	36.1% (n=37)	7.2% (n=7)
Information Literacy	96	2.8	61.2% (n=59)	36.9% (n=35)	1.9% (n=2)

Figure 3: Scenario Averages by Degree

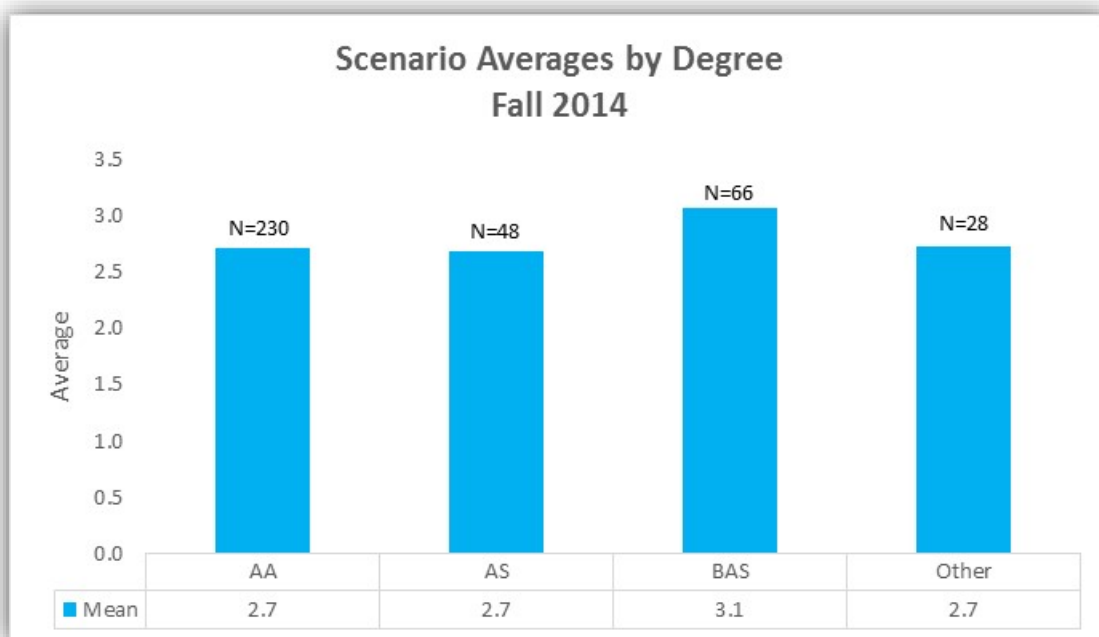


Figure 4: Scenario Averages by Course Modality³

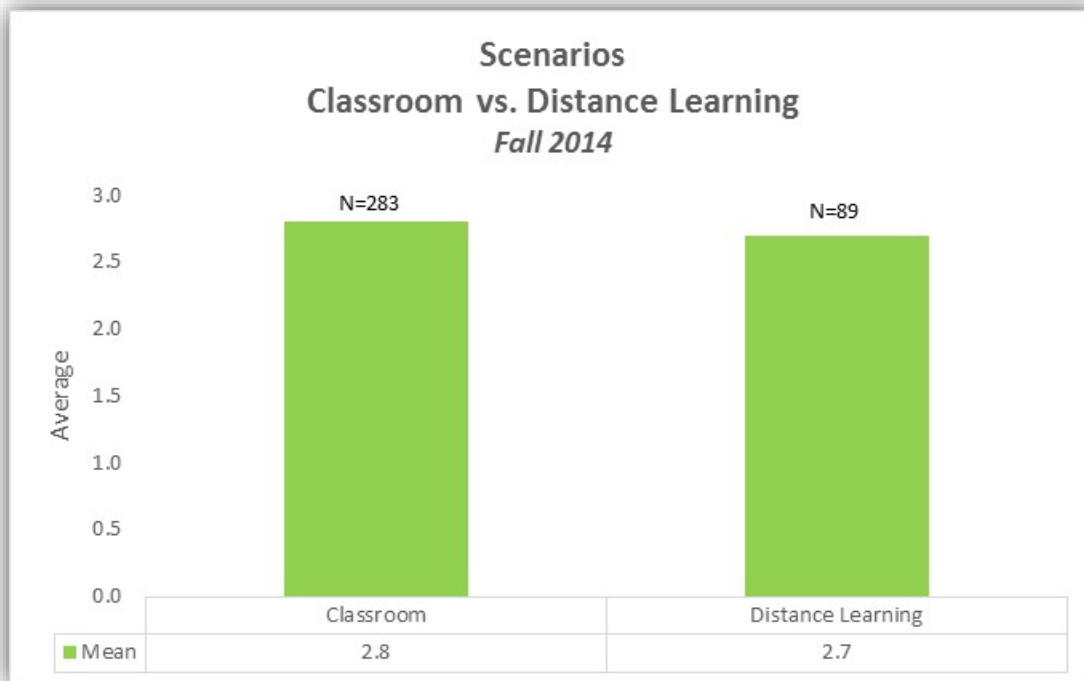
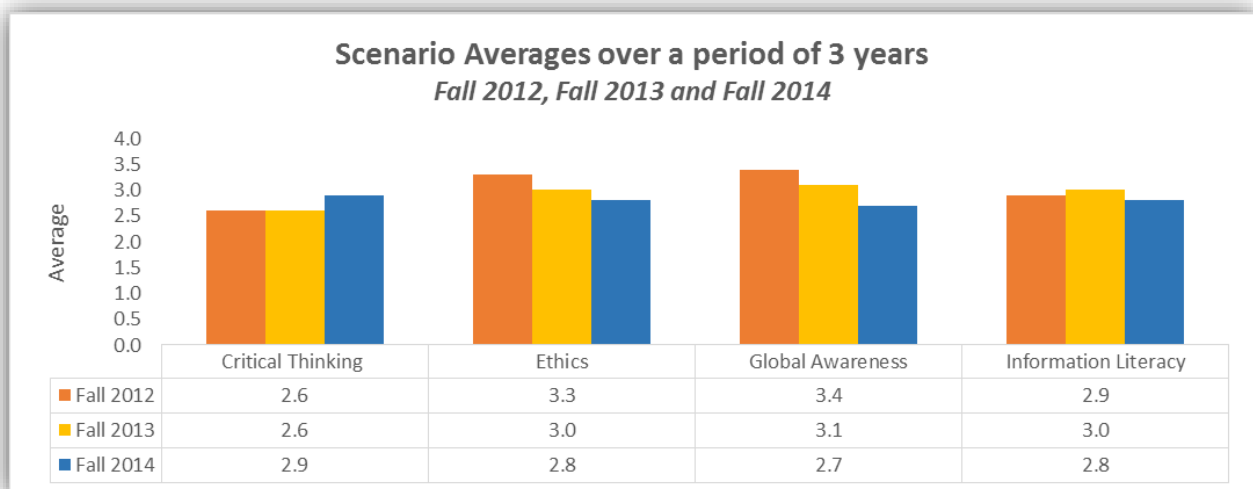


Figure 5: Scenario Averages 2012-2014



Graduating Student Survey

All students are asked to respond to the *Graduating Student Survey* as an exit survey upon graduating the College. The survey provides self-reported responses on a statement of agreement related to

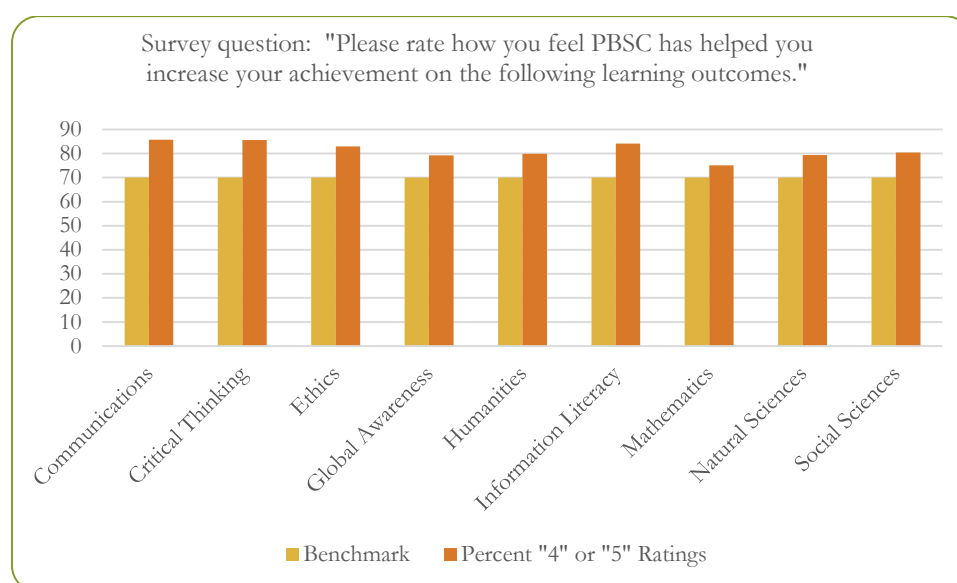
³ For the purpose of comparison, distance learning students are defined as students enrolled in at least one fully online course. Students enrolled in hybrid courses or courses with an online component are counted as classroom students.

how well students believe the College contributed to their achievement of each of the general education and institutional learning outcomes. Students are instructed to use a numerical rating from 1 (Very Little) to 5 (Very Much) or to select “Don’t Know.” The benchmark is that at least 70% of students will respond favorably with either a “4” or “5” rating for each of the outcomes. Results for 2014-2015 are shown in Table 7 and Figure 6 below.

Table 7: Number of Responses and Average Ratings on the *Graduating Student Survey*

Outcome	n	Percent “4” Ratings	Percent “5” Ratings	Average Rating
Communications	569	57.1%	28.6%	4.4
Critical Thinking	569	54.5%	31.1%	4.4
Ethics	567	53.4%	29.6%	4.4
Global Awareness	566	50.4%	28.8%	4.3
Humanities	567	52.7%	27.2%	4.3
Information Literacy	562	55.0%	29.2%	4.4
Mathematics	566	49.1%	26.0%	4.2
Natural Sciences	563	50.3%	29.1%	4.3
Social Sciences	560	54.8%	25.7%	4.4

Figure 6: Results of *Graduating Student Survey*



Program Assessment that Supports General Education and the Associates of Arts Degree

All academic programs at Palm Beach State participate in rigorous assessment of the Program Learning Outcomes (PLOs). Faculty, program directors, associate deans, academic deans, and provosts engage in annual program review of the assessment results and other applicable metrics. This process includes the identification of any general education or institutional learning outcomes that are supported by every PLO. This year, an analysis has been completed as an added measure for the general education program.

The target was met for most program learning outcomes assessed that support the general education areas, specifically, Communications, Humanities, Mathematics, Natural Sciences, and Social Sciences, with targets met for 73% to 83% of outcomes. The same is true for the Institutional Outcomes of Critical Thinking, Ethics, Global Awareness, and Information Literacy, with targets met for 78% to 88% of outcomes. Figures 7-10 summarize these results.

Figure 7. General Education Learning Outcomes Supported by Program Learning Outcomes (Percent that Met Target in Each Area)

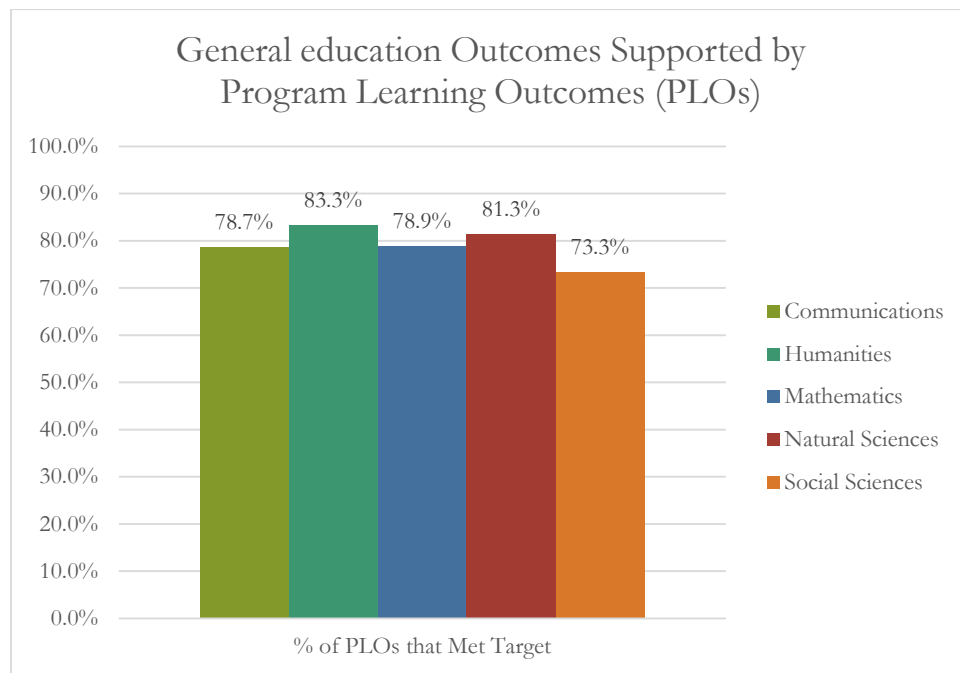


Figure 8. Institutional Learning Outcomes Supported by Program Learning Outcomes - Percent that Met Target in Each Area

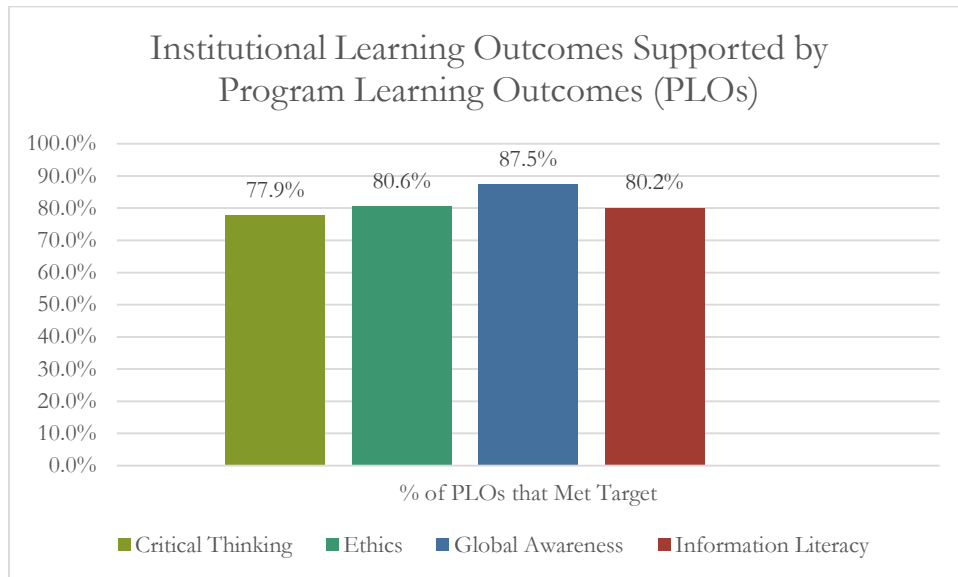


Figure 9. Program Outcomes Assessed that Support the General Education Program - Percent that Met Target

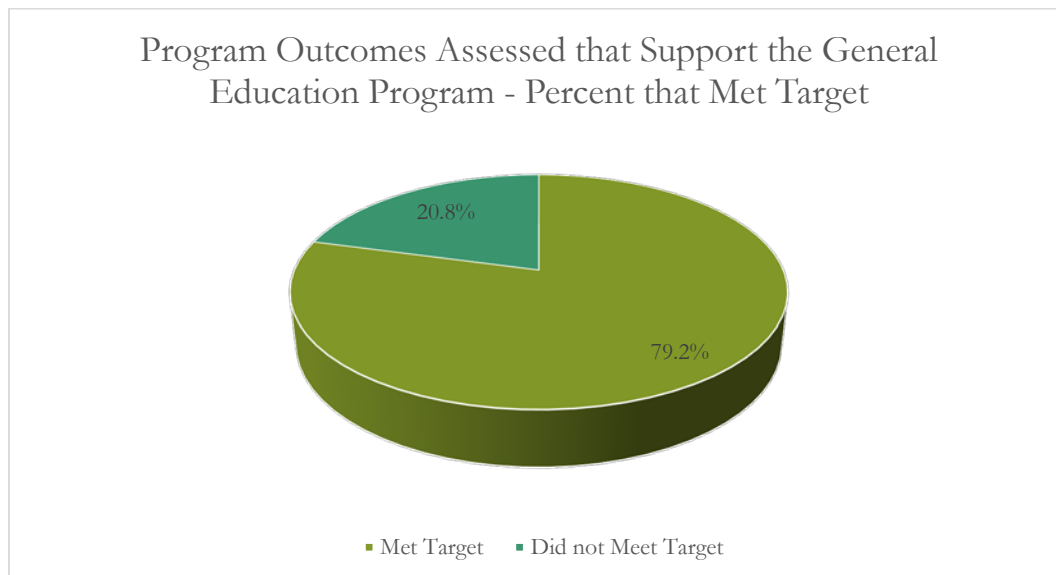
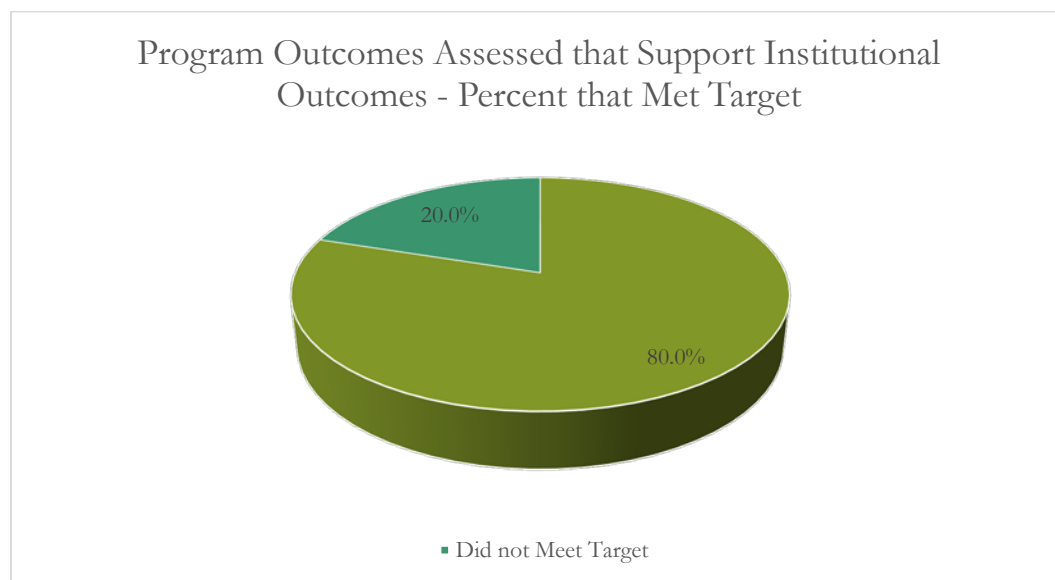


Figure 10. Program Outcomes Assessed that Support Institutional Learning Outcomes - Percent that Met Target



Gordon Rule

Although not a measure of the general education program or the AA degree, the Gordon Rule has been a focus of the General Education Assessment Committee for the last few cycles. Pursuant to Florida State Board of Education Administrative Rule 6A-10.030, F.A.C. (*Other Assessment Procedures for College-Level Communication and Computation Skills*), the College must ensure particular completion standards of students who complete English and mathematics courses. As it relates to writing, the intent of the rule is that students will be held accountable for college-level writing through course assignments and course completion. In response, the College maintains guidelines to help faculty, students, and administrators, understand what assignments typically do and don't fulfill the Gordon Rule writing requirement. Acting on improvement strategies from previous cycles, faculty on the Committee, with significant feedback from faculty College-wide, refined the guidelines in the 2014-2015 cycle. See Appendix E to review the Gordon Rule and the revised guidelines for compliance.

Using the Results

In previous cycles, the College has closed the loop by sharing results with faculty in advance of all-faculty meetings so that the results could be evaluated and improvement strategies subsequently recommended. In these cycles, College-wide faculty feedback was requested and then discussed by peer representatives on the General Education Assessment Committee (Committee), and improvement strategies were developed and documented.

In 2014-2015, an added step was taken to more deeply engage faculty in the process: leadership of the Committee was primarily assumed by faculty. An English faculty member was appointed as

Committee Chair, and two additional faculty members were identified as faculty liaisons. Partnering with the assessment director, these three faculty facilitated in-depth conversations early in the spring semester (February) with faculty on each campus, discussing both the embedded assessment results and the process itself. At these campus faculty meetings, much discussion centered on the quality and administration of the assessments.

Faculty collaborated with each other at the campus meetings and again in March with faculty in their disciplines to derive improvement strategies. These recommendations were discussed at a final Committee meeting in April, as were the results of scenarios and the revisions to the Gordon Rule guidelines, and the following strategies were constructed for the 2015-2016 assessment cycle.

Improving the Data Collection Process for Embedded Assessment Results

Communicating the Process

One issue that emerged in the process evaluation is that communication must be improved. Specific suggestions were that communication should begin earlier in the semester, adjuncts should be better informed, and reminders should be sent only to those who had not completed data entry. Accordingly, communication will begin early in the semester to remind all faculty of the embedded assessment requirement. The assessment director will communicate the process to new faculty and department chairs at the start of the semester. Department chairs will be asked to distribute information at the fall adjunct orientation and update meetings that are held the week classes begin. Faculty members on the Committee will be asked to participate in communicating reminders to peers in addition to reminders issued by IRE as the semester progresses. Near the end of the semester, only faculty with incomplete data will be reminded to finish their input. Finally, the assessment director will work closely and regularly with associate deans to maximize communication with faculty and adjuncts.

Entering Scores

The percentage of valid scores reported was better in the second iteration but still needs to be improved. The problem remains that some faculty members are inputting scores that are out of range for the common assessment instrument in their course. For example, in the past, some faculty in a course that scores with a 5-point rubric have entered scores as percentages, such as 73% or 67%, that do not make sense for the selected assessment. To this end, staff in the Office of Institutional Research and Effectiveness will work to program a “stop” mechanism that will alert faculty to input scores within range if they attempt to enter inappropriate scores.

Administering the Assessments

Faculty used the results in this cycle to plan for the next iteration. In some cases, inconsistencies were discovered. For example, assessments in the same course were being given at different times during the semester or with different weights toward the course grade. A recurring theme of the conversations was that such inconsistency makes

comparison difficult and challenging at best and thus developed strategies to improve consistency in the next cycle. For example, in the Introduction to Sociology course, faculty will embed the assessment questions into the end of course final exam. Faculty in all of the literature course agreed to administer the assessment as part of a final formal paper. In Anatomy and Physiology, faculty will embed the common questions into a unit test on muscular physiology. This detail was assumed in the first iteration and only came to light in the evaluation of the second set of results.

Closing the Loop

Collaborative faculty-led conversations appear to have been successful both as a matter of faculty participation and feedback, as well as developing improvement strategies, and will therefore continue in the next cycle. However, the timing will change. In this cycle, small but open campus meetings for discussing the results were scheduled beginning late February. All full-time faculty then met in disciplines in March to develop improvement strategies to submit to IRE in April. There was little turnaround time in between each set of discussions and for the work that was required by April. Therefore, campus meetings will be offered earlier in the semester if possible to begin to discuss the results and allow more time to prepare for the March meetings where improvement strategies are developed.

Additional Measures

It was originally thought that the broad scope of content assessed at the course level would authentically measure general education as a program with a variety of measures that could be aggregated. That may become true over time, but after two iterations, the College is not satisfied that the embedded assessment process is sufficient alone to make a rich statement about student learning in the general education program. When embedded assessment was fully integrated into all general education courses in fall 2013, the College discontinued the previously used external assessment⁴ and scenarios became a measure of the institutional outcomes only. In the fall semester 2015, the College will add scenarios back into the general education assessment, initially for the Communications and Mathematics outcomes. Additional measures will also be added back in for Humanities, Natural Sciences, and Social Sciences.

Improving Understanding of the Gordon Rule Guidelines

Peer Discussion

Faculty on the Committee will facilitate or participate in regular sessions with peers to create an ongoing conversation about the need to hold students accountable for college-level writing. These sessions will be used to help non-English faculty in particular by providing explanations, resources, and guidance as needed. Academic Development Day and the Professional Teaching and Learning Centers will be used as venues for these sessions.

⁴ The College used the *ETS Proficiency Profile* to measure Communications and Mathematics from 2011-2013, and scenarios to measure all general education outcomes from 2009 until the outcomes were revised in 2013.

Resources for non-English Faculty

The Committee will continue to review assessment resources and electronic writing aids that may be useful to non-English faculty. Additionally, the Committee will revisit previously developed workshops that can be offered to all faculty to increase knowledge about and opportunities to implement proven assessment techniques, such as creating effective test items and developing clear rubrics.

Future Directions

The College will implement at least one more iteration of embedded assessment with the previously mentioned improvement strategies in the next cycle. This will provide comparable data that can be used for continuous improvement. However, additional revision to the process will benefit the institution as a whole as well as all participating faculty and will be considered in the next evaluation. For example, with another iteration, it is expected that faculty can revisit the previously selected outcomes and assessment and discuss with a greater level of understanding the improvements that would be useful for instruction. Additionally, it is possible that sampling would be a better option for implementation than the current systemic process, so sampling alternatives will be discussed in the 2014-2015 year for potential implementation in fall 2016.

Scenarios will be introduced back into the assessment cycle for the general education outcomes, and additional measures will be reviewed for possible implementation or piloting in the next cycle. The Graduating Student Survey will continue to be used as a self-reported indirect measure of each general education and institutional learning outcome.

Finally, to improve the degree to which faculty have opportunities to participate in, contribute to, and provide input for the assessment process, spring meetings on each campus will continue. However, additional faculty liaisons will be added to the Committee, and the organization and role of the committee will be reviewed during the next cycle.

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Appendix A

General Education Philosophy

Faculty on the General Education Assessment Committee developed a formal statement to capture the philosophy of the general education program at Palm Beach State College. The statement was originally written in 2009 and revised with the outcomes in 2013. In both cases, the statement was shared with and vetted by faculty, staff, and administrators College-wide.

General Education Philosophy Statement

The general education program at Palm Beach State College prepares students for lifelong intellectual pursuits and responsible participation in a complex global society through a core curriculum that encourages examination of diverse values and perspectives and offers students a depth and breadth of learning that transcends the content of any one specific discipline.

Appendix B

Course Learning Outcomes Assessed

In every course in each general education area, faculty selected a common outcome to assess as a measure of the general education learning outcome for the area. Appendix B provides those outcomes.

Area I – Communications

General Education Learning Outcome:

Demonstrate effective communication skills for a variety of audiences.

Course	Course Learning Outcome Selected
ENC 1101	Demonstrate effective writing skills for a specific audience.
ENC 1121	Demonstrate effective writing skills for a specific audience.
ENC 1121	Demonstrate effective writing skills for a specific audience.
ENC 1122	Demonstrate effective writing skills for a specific audience.
ENC 1141	Demonstrate effective writing skills for a specific audience.
SPC 1017	Demonstrate how to effectively manage communication anxiety.

Area II – Humanities

General Education Learning Outcome:

Communicate awareness of and demonstrate effective skills in the analysis of creative works.

Course	Course Learning Outcome Selected
AML 2010	Analyze the characteristics of a particular literary work.
AML 2020	Analyze the characteristics of a particular literary work.
AML 2600	Analyze the characteristics of a particular literary work.
AML 2631	Analyze the characteristics of a particular literary work.
AML 2660	Analyze the characteristics of a particular literary work.
ENL 2012	Analyze the characteristics of a particular literary work.
ENL 2022	Analyze the characteristics of a particular literary work.
LIT 1050	Analyze the characteristics of a particular literary work.

LIT 1370	Analyze the characteristics of a particular literary work.
LIT 2090	Analyze the characteristics of a particular literary work.
LIT 2110	Analyze the characteristics of a particular literary work.
LIT 2120	Analyze the characteristics of a particular literary work.
LIT 2190	Analyze the characteristics of a particular literary work.
LIT 2380	Analyze the characteristics of a particular literary work.
ARH 1000	Develop a formal analysis of a work of art.
ARH 2050	Explain the principles of art that account for selected masterpieces to have endured for ages.
ARH 2051	Explain the principles of art that account for selected masterpieces to have endured for ages.
FIL 2000	Analyze formal aspects of film, such as the use of color, lighting, sound focus, shot joining devices, and camera angles.
MUH 2018	Identify each stylistic period in jazz development as it historically occurred.
MUH 2018	Analyze recordings as to jazz style, influences, and performer.
MUL 1010	Define and/or describe the stylistic characteristics of each period.
MUL 1010	Using developed listening skills, analyze musical compositions for stylistic characteristics.
MUT 1001	Analyze musical excerpts for the following elements: pitch, key, harmony, and/or rhythm.
THE 1000	Discuss playwriting and dramatic criticism.

Area III – Mathematics

General Education Learning Outcome:

Apply mathematical principles, problem solving techniques, critical thinking and logical reasoning to demonstrate an understanding of mathematical concepts and to solve real-world problems.

Course	Course Learning Outcomes Selected
MAC 1105	Use the properties of exponential and logarithmic functions to solve various economics and real-life problems.
MAC 1114	Solve right triangle applications and vector applications of the trigonometric functions as they apply to angles, angle of elevation or depression, bearings and work
MAC 1140	Solve linear and non-linear systems of equations algebraically, and use them to solve real-life problems
MAC 1147	Construct the unit circle and show all standard angles in radians and degrees, and use this information to solve problems involving bearings.
MAC 2233	Solve problems involving applications of the derivative including optimization, rates of change such as related rates and the sketching of curves for business and economics
MAC 2311	Integrate algebraic, trigonometric, logarithmic, exponential and inverse trig functions, using u-substitution whenever needed, and be able to use integration to determine area under a curve.
MAC 2312	Solve problems involving applications of integration as applied to area between curves, volumes of solids of revolution (including disk, washer and shell methods)
MAC 2313	Evaluate multiple integrals and use them to find surface area, mass, volume of solids.
MAP 2302	Solve first order differential equations using the techniques of separation of variables, linear equations, exact equations, homogeneous substitution, and Bernoulli's substitution
MAS 2103	Students will apply matrix theory and operations in the development of n-dimensional vector spaces, linear transformations, and the solution of systems of equations

MGF 1106	Solve real-world problems involving perimeters, areas, and volumes of geometric figures.
MGG 1107	Solve application problems involving installment buying.
MTG 2206	Apply the Pythagorean Theorem and its converse to geometric and algebraic, and real-life applications
STA 2023	Utilize random samples of data to draw inferences and conclusions from an analysis of the data and utilize these inferences and conclusions in decision-making.

Area IV – Natural Sciences

General Education Learning Outcome:

Demonstrate comprehension of fundamental concepts, principles, or processes about the natural world.

Course	Course Learning Outcomes Selected
AST 1002	Describe and compare the characteristics of the planets in the solar system.
AST 1003	Describe the motions of the Sun, Earth, Moon and planets in the solar system.
AST 1004	Compare the stages of stellar evolution of a medium mass star to that of a massive star.
BOT 1010	Apply proper terminology to plant external and internal structure.
BOT 1010L	Apply proper terminology to plant external and internal structure.
BSC 1005	Describe various cellular organelles and explain their importance to the cell.
BSC 1005L	Describe diffusion and osmosis of various substances in various conditions.
BSC 1010	Describe structure and synthesis of DNA, and identify the functional role of DNA in protein synthesis including how various mistakes in the genetic sequence can cause mutations which lead to genetic disorders.
BSC 1010L	Compare the effects of various factors upon enzyme activity.
BSC 1011	Compare and contrast the members of the Kingdoms: Protist, Fungi, Plant and Animal.

BSC 1011L	Distinguish between selected members of the Kingdoms: Protist, Fungi, Plant and Animal.
BSC 2085	Describe the structure of eukaryotic/human cell and its component organelles along with its functions.
BSC 2085L	Identify the bones and markings of the skeletal system.
BSC 2086	Describe and differentiate between the processes of physical and chemical digestion.
BSC 2086L	Expose and identify the various organs of the abdominopelvic cavity.
BSC 2421	Define recombinant DNA (rDNA) technology.
BSC 2421L	Prepare normal and molar, weight by volume, volume by volume, and percentage solutions, as well as different buffers, and be able to operate pH meters and spectrophotometers.
CHM 1032	Recognize organic families and classes of compounds.
CHM 1032L	Demonstrate measurement skills.
CHM 1025	Evaluate the mathematical relationships within balanced chemical equations.
CHM 1045	Identify the quantitative relationships in formulas and chemical.
CHM 1045L	Write and report scientific data.
CHM 1046	Explain acids, bases, and pH.
CHM 1046L	Explain acids, bases, salts, and pH.
ESC 1000	Differentiate between metamorphic, sedimentary and igneous rocks and describe the basic processes of the Rock Cycle.
EVR 1001	List reasons for valuing biodiversity, and identify the causes of loss of biodiversity today.
GLY 1000	Explain the basic theory of plate tectonics including crustal relationships at different plate boundaries.
HSC 1101	Explain the diseases associated with lifestyle behaviors and the health related techniques that can be used to improve quality of life and help prevent disease.
HSC 2100	Explain the principle concepts that comprise a healthy personality, and its application, development and maintenance.

HSC 2204	Describe the essential elements of community health, the history of health care delivery systems and contemporary issues affecting the nation's health care system.
HUN 1201	Describe the metabolic pathways used to convert nutrients into useable body energy and factors influencing pathway use.
MCB 2010	Describe the major differences between Gram positive and Gram negative bacteria and the different methods to isolate and identify those microorganisms.
MCB 2010L	Perform or observe the Gram stain procedure, acid-fast stain, capsule stain and endospore stains to identify bacteria with an understanding of the clinical relevance of these procedures.
OCE 1001	Describe the structure and functions of the physical and chemical properties of seawater.
OCE 1001L	Describe coastal oceanography.
PHY 2048	Perform calculations using Newton's three laws of motion.
PHY 2048L	Explain how a particular laboratory experiment verifies a principle or concept of physics.
PHY 2049	Perform calculations using the principles and concepts of electrostatics as described by Coulomb's law, Gauss's law and electric potential for both discrete and continuous charge distributions.
PHY 2049L	Explain how a particular laboratory experiment verifies a principle or concept of physics.
PHY 2053	Perform calculations using Newton's three laws of motion.
PHY 2054	Perform calculations using the equations of magnetism that involve the quantities of magnetic field, magnetic force, electric current and inductance.
PSC 1341	Explain Newton's three laws of motion.

Area V – Social Sciences

General Education Learning Outcome:

To understand and apply sociological, cultural, political, psychological, historical and economic principles to a global environment.

Course	Course Learning Outcomes Selected
AMH2010	Survey the growth of America's role in the world.
AMH2020	Survey the growth of America's role in the world.
ANT2000	Categorize and evaluate the functions of the many socio-cultural subsystems, such as the political, economic, religious and others, and how these bond the culture together holistically.
ECO2013	Describe the role the U.S. plays in the global economy.
GEA1000	Identify the major geographic realms of the world and the historical, demographic, physical, economic, social, political, religious, cultural and ethnic factors that have shaped them to engender a greater awareness and appreciation of the diversity of the planet and become more involved with and active within it.
PHI1010	Demonstrate the ability to philosophize and form stances on critical issues relating to the nature of the universe and man's place in it.
POS 1001	Demonstrate an understanding of the local, state, national and international political institutions, processes and principles and apply them to a diverse global community.
POS 1041	Demonstrate an understanding of the local, state, national and international political institutions, processes and principles and apply them to a diverse global community.
POS 2112	Demonstrate an understanding of the local, state, national and international political institutions, processes and principles and apply them to a diverse global community.
PSY2012	Compare and contrast the different theoretical principles that formed the field of psychology.
SYG1230	To understand and apply group differences and challenges within a global society.

- SYG2000 Explain the concept of social institutions, social groups and social interaction; their nature and consequences in a global society.
- SYG2010 Examine and critique concepts and theories offered for the factors responsible for social problems and assess possible solutions to ameliorate social problems.

Appendix C

Sample Rubrics

Art History 2 Assessment Rubric

(used to score student essay addressing art-historical significance of a selected work of art)

Category	4	3	2	1
Historical Context	Student identifies multiple historical events and correctly correlates them to the work in question demonstrating how the historical context is evident in the work.	Student identifies multiple historical events and correctly correlates them to the work in question.	Student identifies 1 or 2 historical events but does not correlate them to the work.	Student fails to identify historical context.
Cultural Context	Student identifies multiple cultural factors (spiritual, religious, philosophical) and correctly correlates them to the work in question demonstrating how the cultural context is evident in the work.	Student identifies multiple cultural factors (spiritual, religious, philosophical) and correctly correlates them to the work in question.	Student cultural factors (spiritual, religious, philosophical) but does not correlate them to the work.	Student fails to identify principles of design or visual elements.
Art Historical Context	Student identifies multiple Art Historical referents (styles, movements, etc.) and correctly correlates them to the work in question demonstrating how the Art Historical context is evident in the work.	Student identifies multiple Art Historical referents (styles, movements, etc.) and correctly correlates them to the work in question.	Student identifies 1 or 2 Art Historical events but does not correlate them to the work.	Student fails to identify Art Historical context.
Formal Analysis	Student identifies multiple design principles and visual elements and correctly correlates them to the work in question demonstrating how the artist(s) worked effectively to create a work that has a visual/formal impact?	Student identifies multiple design principles and visual elements and correctly correlates them to the work in question.	Student identifies multiple design principles and visual elements but does not correctly correlate them to the work in question.	Student fails to identify historical context.

Introduction to Philosophy Assessment Rubric

Instructions: Use the following rubric to assess the Social Sciences General Education Learning Outcome on a written assignment administered near the end of the semester to assess the level of students' abilities to "philosophize and form stances on critical issues relating to the nature of the universe and man's place in it."

Philosophy Assessment Rubric	Unacceptable (1)	Emerging (2)	Developing (3)	Proficient (4)	Exemplary (5)
	The student does not demonstrate the skills required for the outcome.	The demonstration of skills required for the outcome is weak.	The demonstration of skills required for the outcome is present, but needs improvement.	The demonstration of skills required for the outcome is apparent.	The demonstration of skills required for the outcome is excellent.
Outcome 1 Students are able to analyze and interpret relevant philosophers and philosophical positions.	Student misunderstands key philosophies or offers biased interpretations.	Student misunderstands or ignores key points and arguments.	Student response includes analysis and interpretation, but the response is somewhat incomplete or inaccurate.	Student response demonstrates an understanding of key points, though falters on some important details.	Student response delivers a thorough analysis of the relevant information and recognizes nuance within the argument.
Outcome 2 Students are able to form and defend their own stance through philosophical argument methods.	Student offers conclusions that are fallacious, irrelevant, or missing, or provides little evidence or reasons for conclusions.	Student offers inappropriate conclusion and minimal evidence for conclusion. Alternative points of view are not considered.	Student reaches a relevant conclusion, but the reasoning process is somewhat incomplete or inaccurate.	Student reaches a relevant conclusion, offers evidence from relevant philosophers, and considers obvious implications and points of view.	Student offers conclusions that are warranted, judicious, and based on sound reasoning. Major implications and relevant points of view are considered.
Outcome 3 Students are able to evaluate and explain how their stance relates to the nature	Regardless of the evidence or reasons in the given information, student maintains or defends views based on self-	Student poorly evaluates their stance and ignores most implications of how that stance relates to the	Student is able to somewhat evaluate their stance in relation to philosophies about the universe and	Student evaluates the main philosophical stances on the universe and humanity's place and is able to justify the	Student evaluates all relevant philosophical stances as it relates to their own, justifying both major and minor

of the universe and
man's place in it.

interest or
preconceptions.
Does not explain or
communicate a
relevant response.

universe and
humanity's place.

humanity's place, but
does not fully justify
their particular
viewpoint.

key points of their
own stance.

evidence for their
stance. Student
objectively reflects
upon own arguments
and assumptions.

Appendix D

Embedded Assessment Results by Course

COMMUNICATIONS

ENC1101	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	1	102	3.33%	3.69	3/5	87.18%
	2	264	8.63%			
	3	765	25.00%			
	4	996	32.55%			
	5	728	23.79%			
Total valid scores:		2855	93.30%			
Benchmark: At least 70% of students will score a 3 or higher on the 5-point rubric. Benchmark met.						

ENC1102	Score	n	Percent¹	Average score	Target for competency	% of valid scores at target or above
	1	51	3.50%	3.73	3/5	88.34%
	2	112	7.68%			
	3	390	26.73%			
	4	458	31.39%			
	5	387	26.53%			
Total valid scores:		1398	95.82%			
Benchmark: At least 70% of students will score a 3 or higher on the 5-point rubric. Benchmark met.						

ENC1121	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
Results not published - sample too small ²						

ENC1122	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	1	0	0.00%	4.73	3/5	100.00%
	2	0	0.00%			
	3	1	6.67%			
	4	2	13.33%			
	5	12	80.00%			
Total valid scores:		15	100.00%			
Benchmark: At least 80% of students will score a 3 or higher on the 5-point rubric. Benchmark met.						

ENC1141	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	1	1	2.56%	4.44	3/5	94.87%
	2	1	2.56%			
	3	3	7.69%			
	4	9	23.08%			
	5	25	64.10%			
Total valid scores:		39	100.00%			
Benchmark: At least 70% of students will score a 3 or higher on the 5-point rubric. Benchmark met.						

SPC1017	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	1	30	1.30%	3.70	3/5	89.05%
	2	219	9.52%			
	3	711	30.90%			
	4	753	32.72%			
	5	561	24.38%			
Total valid scores:		2274	98.83%			
Benchmark: At least 70% of students will score a 3 or higher on the 5-point rubric. Benchmark met.						

Communications Area of General Education (6 courses in this area)	Number of courses assessed ³	Number of courses that met benchmark	Percent of assessed courses that met target
	6	6	100%
Benchmark: At least 70% of courses assessed will meet the embedded assessment target. Benchmark met for Communications.			

HUMANITIES

English Courses

AML2010	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	1	18	6.55%	3.73	3/5	83.58%
	2	27	9.82%			
	3	58	21.09%			
	4	80	29.09%			
	5	91	33.09%			
Total valid scores:		274	99.64%			

Benchmark: At least 70% of students will score a 3 or higher on the 5-point rubric.
 Benchmark met.

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AML2660	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
Results not published - sample too small ²						

ENL2012	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	1	2	2.50%	4.44	3/5	96.25%
	2	1	1.25%			
	3	8	10.00%			
	4	18	22.50%			
	5	51	63.75%			
Total valid scores:		80	100.00%			
Benchmark: At least 70% of students will score a 3 or higher on the 5-point rubric. Benchmark met.						

LIT1000	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	1	2	2.74%	3.43	3/5	78.26%
	2	13	17.81%			
	3	20	27.40%			
	4	21	28.77%			
	5	13	17.81%			
Total valid scores:		69	94.52%			
Benchmark: At least 70% of students will score a 3 or higher on the 5-point rubric. Benchmark met.						

LIT2090	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	1	7	2.90%	4.06	3/5	88.98%
	2	19	7.88%			
	3	36	14.94%			
	4	64	26.56%			
	5	110	45.64%			
Total valid scores:		236	97.93%			
Benchmark: At least 70% of students will score a 3 or higher on the 5-point rubric. Benchmark met.						

LIT2110	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	1	12	24.49%	3.43	3/5	63.27%
	2	6	12.24%			
	3	4	8.16%			
	4	3	6.12%			
	5	24	48.98%			
Total valid scores:		49	100.00%			
Benchmark: At least 70% of students will score a 3 or higher on the 5-point rubric. Benchmark unmet.						

LIT2120	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	1	1	2.44%	3.93	3/5	87.80%
	2	4	9.76%			
	3	7	17.07%			
	4	14	34.15%			
	5	15	36.59%			
Total valid scores:		41	100.00%			
Benchmark: At least 70% of students will score a 3 or higher on the 5-point rubric. Benchmark met.						

LIT2190	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
Results not published - sample too small ²						

LIT2380	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	1	7	5.51%	3.48	3/5	80.95%
	2	17	13.39%			
	3	30	23.62%			
	4	52	40.94%			
	5	20	15.75%			
Total valid scores:		126	99.21%			
Benchmark: At least 70% of students will score a 3 or higher on the 5-point rubric. Benchmark met.						

LIT2380	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	1	7	5.51%	3.48	3/5	80.95%
	2	17	13.39%			
	3	30	23.62%			
	4	52	40.94%			
	5	20	15.75%			
Total valid scores:		126	99.21%			
Benchmark: At least 70% of students will score a 3 or higher on the 5-point rubric. Benchmark met.						

Fine Arts Courses

ARH1000	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	25	13	1.18%	85.29	75/100	87.60%
	50	62	5.62%			
	75	193	17.50%			
	100	337	30.55%			
Total valid scores:		605	54.85%			
Benchmark: At least 80% of students will score at least 75/100 on the assessment. Benchmark met.						

ARH2050	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	25	1	0.95%	87.50	75/100	91.67%
	50	1	0.95%			
	75	7	6.67%			
	100	15	14.29%			
Total valid scores:		24	22.86%			
Benchmark: At least 80% of students will score at least 75/100 on the assessment. Benchmark met.						

ARH2051	Score	n	Percent¹	Average score	Target for competency	% of valid scores at target or above
	25	3	6.38%	81.45	75/100	77.42%
	50	4	8.51%			
	75	6	12.77%			
	100	18	38.30%			
Total valid scores:		31	65.96%			
Benchmark: At least 80% of students will score at least 75/100 on the assessment. Benchmark met.						

MUL1010	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	5	4	1.04%	13.74	13/20	65.03% (includes scores converted to 20-point scale)
	6	5	1.30%			
	7	7	1.81%			
	8	15	3.89%			
	9	27	6.99%			
	10	24	6.22%			
	11	23	5.96%			
	12	27	6.99%			
	13	38	9.84%			
	14	36	9.33%			
	15	38	9.84%			
	16	29	7.51%			
	17	14	3.63%			
	18	18	4.66%			
	19	5	1.30%			
	20	4	1.04%			
	50	1	0.26%			
	60	2	0.52%			
	65	1	0.26%			
	70	4	1.04%			
	75	7	1.81%			
	80	13	3.37%			
	85	9	2.33%			
	90	4	1.04%			
	95	7	1.81%			
	100	24	6.22%			
Total valid scores:		386	100.00%			
<p>Note: In this course, some faculty reported scores using a 20-point scale while others reported on a 100-point scale. This will be corrected in the next cycle. For the purpose of calculating whether or not the target was met in 2014-2015 and because the assignment was intended to be scored on a 20-point scale, scores of 50-100 were converted to the 20-point scale.</p> <p>Benchmark: At least 50% of students will score at least 13/20 on the assessment. Benchmark met.</p>						

MUT1001	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	1	1	2.22%	7.42	7/10	75.56%
	3	1	2.22%			
	4	5	11.11%			
	5	2	4.44%			
	6	2	4.44%			
	7	7	15.56%			
	8	10	22.22%			
	9	11	24.44%			
	10	6	13.33%			
Total valid scores:		45	100.00%			
Benchmark: At least 70% of students will score at least 7/10 on the assessment. Benchmark met.						

PHI1010*	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	1	8	9.88%	3.55	4/5	58.62%
	2	4	4.94%			
	3	12	14.81%			
	4	16	19.75%			
	5	18	22.22%			
Total valid scores:		58	71.60%			
Benchmark: At least 50% of students will score a 4 or higher on the 5-point rubric. Benchmark met.						

Humanities Area of General Education (24 courses in this area)	Number of courses assessed ³	Number of courses that met benchmark	Percent of assessed courses that met target
	22	21	95.5%
Benchmark: At least 70% of courses assessed will meet the embedded assessment target. Benchmark met for Humanities.			
<i>* PHI 1010 (Introduction to Philosophy) was moved in 2014-2015 to the Humanities Area; assessment for this course was still mapped to the Social Sciences outcome in this cycle and is therefore counted in this area, not Humanities.</i>			

MATHEMATICS

[illegible][illegible][illegible]

Benchmark met.						
MAC2233	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	0	64	17.73%	1.78	2/3	60.39%
	1	79	21.88%			
	2	92	25.48%			
	3	126	34.90%			
Total valid scores:		361	100.00%			
Benchmark: At least 50% of students will score a 2 or higher out of 3 points possible on the assessment. Benchmark met.						

MAC2311	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	0	24	12.06%	2.53	3/5	51.26%
	1	32	16.08%			
	2	41	20.60%			
	3	46	23.12%			
	4	28	14.07%			
	5	28	14.07%			
Total valid scores:		199	100.00%			

Benchmark: At least 50% of students will score a 3 or higher out of 5 points possible on the assessment.

Benchmark met.

MAC2312	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	0	19	14.84%	1.63	2/3	50.78%
	1	44	34.38%			
	2	31	24.22%			
	3	34	26.56%			
Total valid scores:		128	100.00%			

Benchmark: At least 50% of students will score a 2 or higher out of 3 points possible on the assessment.

Benchmark met.

[illegible]

MAP2302	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	0	6	18.75%	1.75	2/3	56.25%
	1	8	25.00%			
	2	6	18.75%			
	3	12	37.50%			
Total valid scores:		32	100.00%			
Benchmark: At least 50% of students will score a 2 or higher out of 3 points possible on the assessment.						
Benchmark met.						

MAS2103	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
Results not published - sample too small ²						

MGF1106	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	0	18	3.88%	2.40	2/3	83.41%
	1	59	12.72%			
	2	107	23.06%			
	3	280	60.34%			
Total valid scores:		464	100.00%			
Benchmark: At least 50% of students will score a 2 or higher out of 3 points possible on the assessment.						
Benchmark met.						

MGF1107	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	0	7	8.24%	1.81	2/3	55.29%
	1	31	36.47%			
	2	18	21.18%			
	3	29	34.12%			
Total valid scores:		85	100.00%			
Benchmark: At least 50% of students will score a 2 or higher out of 3 points possible on the assessment. Benchmark met.						

STA2023	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	0	89	14.91%	1.65	2/3	55.11%
	1	179	29.98%			
	2	178	29.82%			
	3	151	25.29%			
Total valid scores:		597	100.00%			
Benchmark: At least 50% of students will score a 2 or higher out of 3 points possible on the assessment. Benchmark met.						

Mathematics Area of General Education (13 courses in this area)	Number of courses assessed ³	Number of courses that met benchmark	Percent of assessed courses that met target
	13	11	85%
Benchmark: At least 70% of courses assessed will meet the embedded assessment target. Benchmark met for Mathematics.			

NATURAL SCIENCES

[illegible]

BOT1010	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
Results not published - sample too small ²						

BSC1005	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	0	7	2.42%	3.69	3/5	81.22%
	1	13	4.50%			
	2	26	9.00%			
	3	36	12.46%			
	4	84	29.07%			
	5	79	27.34%			
Total valid scores:		245	84.78%			
Benchmark: At least 75% of students will score a 3 or higher out of 5 points possible on the assessment. Benchmark met.						

BSC1010	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	0	0	0.00%	4.15	3/5	95.14%
	1	0	0.00%			
	2	24	4.70%			
	3	105	20.55%			
	4	137	26.81%			
	5	228	44.62%			
Total valid scores:		494	96.67%			
Benchmark: At least 80% of students will score a 3 or higher out of 5 points possible on the assessment. Benchmark met.						

BSC1011	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	0	0	0.00%	4.31	3/5	98.37%
	1	1	0.68%			
	2	1	0.68%			
	3	19	12.93%			
	4	40	27.21%			
	5	62	42.18%			
Total valid scores:		123	83.67%			
Benchmark: At least 80% of students will score a 3 or higher out of 5 points possible on the assessment.						
Benchmark met.						

BSC2085	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	0	13	1.21%	3.99	2.5/5	84.91%
	1	53	4.93%			
	2	87	8.09%			
	3	133	12.36%			
	4	217	20.17%			
	5	511	47.49%			
Total valid scores:		1014	94.24%			
Benchmark: Students will average at least 2.5 correct answers out of five possible. Benchmark met.						

BSC2086	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	0	7	1.24%	3.99	2.5/5	at least 85.42%
	1	22	3.91%			
	2	50	8.88%			
	3	66	11.72%			
	4	142	25.22%			
	5	255	45.29%			
Total valid scores:		542	96.27%			
Benchmark: Students will average at least 2.5 correct answers out of five possible. Benchmark met.						

BSC2421	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
Results not published - sample too small ²						

CHM1025	Score	n	Percent¹	Average score	Target for competency	% of valid scores at target or above
	0	4	3.57%	2.89	3/5	62.50%
	1	19	16.96%			
	2	19	16.96%			
	3	32	28.57%			
	4	19	16.96%			
	5	19	16.96%			
Total valid scores:		112	100.00%			
Benchmark: At least 60% of students will score a 3 or higher out of 5 points possible on the assessment. Benchmark met.						

CHM1032	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	0	4	1.08%	3.60	3/5	81.89%
	1	7	1.89%			
	2	56	15.14%			
	3	83	22.43%			
	4	135	36.49%			
	5	85	22.97%			
Total valid scores:		370	100.00%			
Benchmark: At least 80% of students will score a 3 or higher out of 5 points possible on the assessment. Benchmark met.						

CHM1045	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	0	23	6.76%	2.89	3/5	57.35%
	1	48	14.12%			
	2	74	21.76%			
	3	64	18.82%			
	4	59	17.35%			
	5	72	21.18%			
Total valid scores:		340	100.00%			
Benchmark: At least 50% of students will score a 3 or higher out of 5 points possible on the assessment. Benchmark met.						

CHM1046	Score	n	Percent¹	Average score	Target for competency	% of valid scores at target or above
	0	2	1.53%	3.69	3/5	77.86%
	1	11	8.40%			
	2	16	12.21%			
	3	21	16.03%			
	4	27	20.61%			
	5	54	41.22%			
Total valid scores:		131	100.00%			
Benchmark: At least 70% of students will score a 3 or higher out of 5 points possible on the assessment.						
Benchmark met.						

ESC1000	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	0	4	0.42%	3.87	3/5	90.08%
	1	24	2.50%			
	2	67	6.99%			
	3	210	21.90%			
	4	346	36.08%			
	5	307	32.01%			
Total valid scores:		958	99.90%			
Benchmark: At least 50% of students will score a 3 or higher out of 5 points possible on the assessment. Benchmark met.						

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GLY1000	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	0	1	0.85%	4.19	3/5	89.83%
	1	1	0.85%			
	2	10	8.47%			
	3	17	14.41%			
	4	23	19.49%			
	5	66	55.93%			
Total valid scores:		118	100.00%			
Benchmark: At least 50% of students will score a 3 or higher out of 5 points possible on the assessment. Benchmark met.						

HSC1101	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	10	1	1.05%	42.08	30/50	91.58%
	25	7	7.37%			
	34	3	3.16%			
	35	1	1.05%			
	36	1	1.05%			
	37	3	3.16%			
	38	4	4.21%			
	39	3	3.16%			
	40	5	5.26%			
	41	6	6.32%			
	42	4	4.21%			
	43	9	9.47%			
	44	6	6.32%			
	45	11	11.58%			
	46	6	6.32%			
	47	6	6.32%			
	48	3	3.16%			
	49	2	2.11%			
	50	14	14.74%			
Total valid scores:		95	100.00%			

Benchmark: At least 80% of students will score at least 30 out of 50 possible points on the assessment.

Benchmark met.

HSC2100	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	0	8	0.53%	86.73	70/100	90.17%
	3	1	0.07%			
	4	4	0.26%			
	5	8	0.53%			
	10	2	0.13%			
	14	1	0.07%			
	27	1	0.07%			
	35	1	0.07%			
	38	3	0.20%			
	40	2	0.13%			
	42	2	0.13%			
	44	2	0.13%			
	48	6	0.40%			
	49	2	0.13%			
	50	6	0.40%			
	52	3	0.20%			
	54	3	0.20%			
	55	1	0.07%			
	56	4	0.26%			
	57	3	0.20%			
	58	3	0.20%			
	60	10	0.66%			
	62	12	0.79%			
	63	3	0.20%			
	64	7	0.46%			
	65	6	0.40%			
	66	10	0.66%			
	67	23	1.52%			
	68	10	0.66%			
	69	2	0.13%			
	70	29	1.91%			
	71	3	0.20%			
	72	12	0.79%			
	73	12	0.79%			
	74	21	1.39%			
	75	15	0.99%			
	76	19	1.25%			
	77	14	0.92%			
	78	40	2.64%			
	79	5	0.33%			
	80	60	3.96%			
	81	8	0.53%			
	82	23	1.52%			
	83	31	2.04%			
	84	23	1.52%			
	85	44	2.90%			
	86	25	1.65%			
	87	43	2.84%			
	88	81	5.34%			
	89	14	0.92%			
	90	97	6.40%			
	91	13	0.86%			
	92	43	2.84%			
	93	55	3.63%			
	94	70	4.62%			
	95	89	5.87%			
	96	46	3.03%			
	97	17	1.12%			
	98	82	5.41%			
	99	19	1.25%			
	100	314	20.71%			
Total valid scores:		1516	100.00%			
Benchmark: At least 80% of students will score at least 70 out of 100 possible points on the assessment.						
Benchmark met.						

HUN1201	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	0	6	0.57%	3.47	3/5	76.35%
	1	70	6.70%			
	2	160	15.33%			
	3	220	21.07%			
	4	297	28.45%			
	5	245	23.47%			
Total valid scores:		998	95.59%			
Benchmark: At least 75% of students will score a 3 or higher out of 5 points possible on the assessment. Benchmark met.						

MCB2010	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	0	5	1.20%	4.42	3/5	95.43%
	1	9	2.16%			
	2	5	1.20%			
	3	50	11.99%			
	4	64	15.35%			
	5	283	67.87%			
Total valid scores:		416	99.76%			
<p>Benchmark: At least 80% of students will score a 3 or higher out of 5 points possible on the assessment.</p> <p>Benchmark met.</p>						

OCE1001	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	0	5	2.91%	3.65	3/5	80.00%
	1	3	1.74%			
	2	26	15.12%			
	3	31	18.02%			
	4	52	30.23%			
	5	53	30.81%			
Total valid scores:		170	98.84%			
Benchmark: At least 75% of students will score a 3 or higher out of 5 points possible on the assessment. Benchmark met.						

PHY2048	Score	n	Percent¹	Average score	Target for competency	% of valid scores at target or above
	0	5	5.49%	2.56	3/5	61.54%
	1	12	13.19%			
	2	18	19.78%			
	3	39	42.86%			
	4	17	18.68%			
Total valid scores:		91	100.00%			
Benchmark: At least 60% of students will score a 3 or higher out of 5 points possible on the assessment. Benchmark met.						

PHY2049	Score	n	Percent¹	Average score	Target for competency	% of valid scores at target or above
	0	3	5.88%	2.39	3/5	47.06%
	1	9	17.65%			
	2	15	29.41%			
	3	13	25.49%			
	4	11	21.57%			
Total valid scores:		51	100.00%			
Benchmark: At least 50% of students will score a 3 or higher out of 5 points possible on the assessment.						
Benchmark unmet.						

PHY2053	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	0	6	12.24%	2.45	3/5	59.18%
	1	10	20.41%			
	2	4	8.16%			
	3	14	28.57%			
	4	15	30.61%			
Total valid scores:		49	100.00%			
Benchmark: At least 55% of students will score a 3 or higher out of 4 points possible on the assessment. Benchmark met.						

PHY2054	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
Results not published - sample too small ²						

PSC1341	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	0	0	0.00%	3.55	3/5	89.66%
	1	0	0.00%			
	2	3	10.34%			
	3	13	44.83%			
	4	7	24.14%			
	5	6	20.69%			
Total valid scores:		29	100.00%			
Benchmark: At least 70% of students will score a 3 or higher out of 5 points possible on the assessment. Benchmark met.						

Natural Sciences Area of General Education (28 courses in this area)	Number of courses assessed ³	Number of courses that met benchmark	Percent of assessed courses that met target
	26	25	96%
Benchmark: At least 70% of courses assessed will meet the embedded assessment target. Benchmark met for Natural Sciences.			

SOCIAL SCIENCES

AMH2010	Score	n	Percent¹	Average score	Target for competency	% of valid scores at target or above
	0	1	0.17%	3.72	3/5	87.27%
	1	24	4.00%			
	2	50	8.33%			
	3	168	28.00%			
	4	169	28.17%			
	5	177	29.50%			
Total valid scores:		589	98.17%			
Benchmark: At least 75% of students will score a 3 or higher out of 5 points possible on the assessment.						
Benchmark met.						

[illegible]

ANT2000	Score	n	Percent¹	Average score	Target for competency	% of valid scores at target or above
	1	0	0.00%	5.68	3/5	94.02%
	2	1	0.85%			
	3	6	5.13%			
	4	8	6.84%			
	5	0	0.00%			
	6	102	87.18%			
Total valid scores:		117	100.00%			
Benchmark: At least 70% of students will score at least a 4 out of 6 possible points on the assessment. Benchmark met.						

GEA1000	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
Results not published - sample too small ²						

POS1041	Score	n	Percent¹	Average score	Target for competency	% of valid scores at target or above
	0	19	2.60%	3.38	3/5	71.78%
	1	72	9.85%			
	2	115	15.73%			
	3	151	20.66%			
	4	153	20.93%			
	5	220	30.10%			
Total valid scores:		730	99.86%			
Benchmark: At least 70% of students will score a 3 or higher out of 5 points possible on the assessment. Benchmark met.						

[illegible]

SYG2000	Score	n	Percent¹	Average score	Target for competency	% of valid scores at target or above
	0	7	0.87%	4.11	3/5	92.58%
	1	8	1.00%			
	2	41	5.10%			
	3	130	16.17%			
	4	221	27.49%			
	5	348	43.28%			
Total valid scores:		755	93.91%			
Benchmark: At least 70% of students will score a 3 or higher out of 5 points possible on the assessment. Benchmark met.						

SYG2010	Score	n	Percent¹	Average score	Target for competency	% of valid scores at target or above
	0	0	0.00%	4.09	3/5	96.92%
	1	0	0.00%			
	2	2	2.44%			
	3	14	17.07%			
	4	25	30.49%			
	5	24	29.27%			
Total valid scores:		65	79.27%			
Benchmark: At least 70% of students will score a 3 or higher out of 5 points possible on the assessment.						
Benchmark met.						

PHI1010*	Score	n	Percent ¹	Average score	Target for competency	% of valid scores at target or above
	1	8	9.88%	3.55	4/5	58.62%
	2	4	4.94%			
	3	12	14.81%			
	4	16	19.75%			
	5	18	22.22%			
Total valid scores:		58	71.60%			
Benchmark: At least 50% of students will score a 4 or higher on the 5-point rubric. Benchmark met.						

Social Sciences Area of General Education (12 courses in this area)	Number of courses assessed ³	Number of courses that met benchmark	Percent of assessed courses that met target
	11*	11*	100%
Benchmark: At least 70% of courses assessed will meet the embedded assessment target. Benchmark met for Social Sciences.			
* PHI 1010 (Introduction to Philosophy) was moved in 2014-2015 to the Humanities Area; assessment for this course was still mapped to the Social Sciences outcome in this cycle and is therefore counted in this area, not Humanities.			

Appendix E
Gordon Rule Statement

PALM BEACH STATE COLLEGE

GORDON RULE STATEMENT

Implementation of Florida State Board of Education Administrative Rule 6A-10.030 ("Gordon Rule") Writing Requirements

In compliance with Florida State Board of Education Administrative Rule 6A-10.030, the College will accomplish Gordon Rule writing standards through designated courses in communications, humanities and social science. These courses, which require significant writing, were incorporated into the College's 1993 implementation of a writing-across-the-curriculum approach in its degree programs. This statement reaffirms that philosophy and clarifies the specific standards for meeting the requirements of the Gordon Rule.

College-level placement scores and/or other prerequisites (for those students required by statute to be tested and placed) are required for enrollment in all Gordon Rule writing courses. A minimum grade of "C" is required in all Gordon Rule courses.

To support a culture of academic excellence, to maintain consistency and to create comparable levels of rigor in all designated courses, the following are the minimum criteria for Gordon Rule courses:

- The standards listed below are considered by the College to be the minimum requirements for college-level writing:
 1. The writing has a clearly defined thesis or central idea.
 2. The writing includes adequate evidence to support the thesis or idea.
 3. The writing reflects the awareness of the conventions of standard written English such as grammar, punctuation, spelling and word usage.
 4. The writing uses clear and logical organization.
 5. The writing demonstrates the ability to synthesize and apply discipline content at the course-specific level.
- All writing assignments must be the students' original, independently produced work.
- Designated Gordon Rule courses must require a minimum word count for writing assignments as established by each cluster.

- Writing assignments used to fulfill the Gordon Rule requirement are those that include evidence of analysis, comparison, interpretation, or other critical thinking applications. Assignments with such evidence are acceptable.

Following are examples of assignments that typically include the evidence stated above:

- In-class and out of class writing assignments (essays/essay/type tests)
- Critical analyses of course readings, presentations, or discussions
- Research papers
- Creative writings appropriate to the course
- Reports
- Academic journals
- Case Studies
- Portfolios
- Oral history assignments
- Position papers
- Speech outlines and formal accompanying scripts for oral presentations

Following are examples of assignments that typically do not include the evidence stated above unless the Gordon Rule criteria can be demonstrated:

- Résumés
 - Note-taking (outside class)
 - Class notes
 - Free-writing or brainstorming
 - Emails, blogs or bulletin board discussions
 - Visual media reports without accompanying full-length script
 - Writings with extensive quotations or paraphrases
 - Personal writings unrelated to course content
 - Homework assignments with responses copied from textbooks or reading materials
- Writing assignments must be incorporated into the designated course curriculum and must be computed in the course final grade.
 - In addition to the grade, faculty will provide students feedback on all Gordon Rule writing assignments.
 - At least one of the writing assignments must be edited and polished.

Note: This draft of the Gordon Rule Statement is the culmination of collaboration between General Education Committee faculty and faculty College-wide. This version was last vetted by faculty in the spring of 2015, with two statements regarding faculty syllabi dropped as a result, and will be presented to the Academic Dean's Council in fall of 2015 for final approval. Pending that approval, these guidelines will become effective January 4, 2016.

The “Gordon Rule”

6A-10.030 Other Assessment Procedures for College-Level Communication and Computation Skills.

(1) In addition to assessments that may be adopted by the State Board of Education or Board of Governors to measure student achievement in college-level communication and computation skills, other assessment requirements shall be met by successful completion of coursework in English and mathematics. For the purposes of this rule, a grade of C or higher shall be considered successful completion.

(2) Prior to receipt of an Associate of Arts degree from a public community college or university or prior to entry into the upper division of a public university or college, a student shall complete successfully the following:

(a) Six (6) semester hours of English coursework and six (6) semester hours of additional coursework in which the student is required to demonstrate college-level writing skills through multiple assignments. Each institution shall designate the courses that fulfill the writing requirements of this section. These course designations shall be submitted to the Statewide Course Numbering System. An institution to which a student transfers shall accept courses so designated by the sending institution as meeting the writing requirements outlined in this section.

(b) Six (6) semester hours of mathematics coursework at the level of college algebra or higher. For the purposes of this rule, applied logic, statistics and other such computation coursework which may not be placed within a mathematics department may be used to fulfill three (3) hours of the six (6) hours required by this section.

(c) Students awarded college credit in English based on their demonstration of writing skills through dual enrollment, advanced placement, or international baccalaureate instruction pursuant to Rule 6A-10.024, F.A.C., and students awarded college credit based on their demonstration of mathematics skills at the level of college algebra or higher through one (1) or more of the acceleration mechanisms in Rule 6A-10.024, F.A.C., shall be considered to have satisfied the requirements in subsection 6A-10.030(2), F.A.C., to the extent of the college credit awarded.

(3) Exemptions and Waivers. Any public community college or university desiring to exempt its students from the requirements of subsection 6A-10.030(2), F.A.C., shall submit an alternative plan to the Department of Education. Upon approval of the plan by the Department, the plan shall be submitted to the State Board of Education or the Board of Governors as appropriate. Upon approval by the State Board of Education or the Board of Governors, said plan shall be deemed effective in lieu of the requirements of subsection 6A-10.030(2), F.A.C.

Specific Authority 1001.02(1), (2)(n) FS. Law Implemented 1001.02 FS., Section 15, Chapter 87-212, Laws of Florida. History—New 1-11-82, Formerly 6A-10.30, Amended 6-8-88, 12-18-05.