

## GENERAL EDUCATION ASSESSMENT COMMITTEE (GEAC)

### AY 2011 - 2012 FINAL REPORT ON GENERAL EDUCATION ASSESSMENT

#### EXECUTIVE SUMMARY

- This is GEAC's initial report, analyzing data relevant to Goal 1 derived from the Core Curriculum of the new General Education Program.
- The departmental data was derived from course-embedded instruments addressing four learning domains: Oral Communication, Written Communication, Decision Making, and Quantitative Literacy.
- Data revealed some strengths and weaknesses in achievement of learning outcomes.
- Based on the findings, GEAC recommends:
  - Addressing students' shortcomings in Information Literacy
  - Expansion of the Supplemental Instruction (SI) program in Mathematics
  - Pilot projects to explore the efficacy of SI in other courses in the General Education Program
  - Continuing support for assessment activities
  - Development of a systematic approach to establishing benchmarks

#### I. INTRODUCTION

The General Education Assessment Committee (GEAC) has been charged with collecting and analyzing assessment data on student learning outcomes emerging from Kutztown University's General Education Program. The new General Education Program, in its first year of implementation, consists of three Learning Goals each containing a number of specific domains: Goal 1 - To cultivate intellectual and practical skills that are practiced extensively, across the curriculum, in the context of progressively more challenging problems, projects, and standards for performance, Goal 2 - To develop an understanding of human cultures and the physical and natural world that is focused by engagement with big questions, both contemporary and enduring, and Goal 3 - To inculcate a sense of personal and social responsibility that is anchored through active involvement with diverse communities and real world challenges.

The structural components that facilitate achieving the Learning Goals of this General Education Program include:

- The University Core Curriculum, containing 12 credits distributed across four areas: Oral Communication, Written Communication, Mathematics, and Wellness;
- University Distribution Requirements, containing 15 credits distributed across five areas: Natural Sciences, Humanities, Social Sciences, Arts, and Free Electives
- Competencies Across the Curriculum, thematic courses containing 21 credits distributed across five themes (9 credits in Writing Intensive; 3 credits each in Quantitative Literacy or

Computer Intensive; Visual Literacy or Communication Intensive; Cultural Diversity; and Critical Thinking.

Because the program consists of three goals, GEAC decided to work on a three-year assessment cycle. In this first year, GEAC will evaluate learning outcome data relevant to Goal 1; in the second year, learning outcome data relevant to Goal 2 will be evaluated; and in the third year, learning data relevant to Goal 3 will be evaluated. This report covers the first year of the first assessment cycle, and thus will address the assessment of student learning outcomes relevant to Goal 1 emerging from the University Core Curriculum.

Each year GEAC is charged with submitting data-informed recommendations to the Division of Academic and Student Affairs and the Strategic Planning and Resources Committee. At the conclusion of each three-year cycle, GEAC will submit an additional report to the General Education Committee and the University Curriculum Committee. The purpose of each annual report is to make recommendations on the allocation of resources to improve the student learning outcomes of the General Education Program. The triennial report will also make recommendations on any potential structural changes required to improve the quality and effectiveness of the General Education Program.

## II. METHODS

The General Education Assessment procedure approved for use at Kutztown University mandates that GEAC analyze data collected and aggregated by departments within which General Education courses are taught. To facilitate this effort, GEAC provided departments with standardized reporting templates that were adapted from the VALUE rubrics developed by the Association of American Colleges & Universities (AAC&U). These templates ask departments to report raw numbers of students demonstrating suggested behavioral achievement and/or quality of work on a descending level of performance, with "4" being the highest and "1" the lowest level of performance, with a "0" category for those failing to achieve the minimum expected level of performance. (The reports submitted by the individual departments are attached to this Final Report.)

For the Oral Communication domain of the Core Curriculum, students' performance in an oral presentation was assessed using a departmentally-developed assessment rubric. The aggregated data from multiple sections of the basic Oral Communication course were reported using the template designed by GEAC for the assessment of Domain 1.4b Oral Communication.

For the Written Communication domain of the Core Curriculum, every student enrolled in the basic college composition course was required to submit a written assignment for assessment. A subset of these, with examples from each section of the course, was randomly selected and scrubbed of any identifying information. The departmental committee assessed the assignments using their

own rubric and reported the results using the template designed by GEAC for the assessment of Domain 1.4a Written Communication.

For the Mathematics domain of the Core Curriculum, multiple sections of first-year mathematics courses completed an assessment instrument embedded in either a classwork assignment or the final examination. The assessment consisted of a set of problems used to determine levels of proficiency in problem solving and quantitative literacy. These instruments were isolated, and a random subset was analyzed by the department's assessment committee. The results were submitted to GEAC on standard reporting templates for Domain 1.2 Decision Making and Domain 1.5 Quantitative Literacy.

For the Wellness domain of the Core Curriculum, multiple sections of the Wellness course collected data obtained from student responses to a set of ten (10) questions designed to determine the students understanding of the essential components of behavior change models that promote personal health and wellness. The ten item tool was used for both determining the student's pre-existing knowledge (pre-instructional) related to behavior change and as a post instructional assessment (determined during the course after the relevant instructional period) and post course assessment (at the conclusion of the course). Additional data collected in a subset of the course sections derived from an analysis of a behavioral change journal maintained by students was also submitted. The results were submitted to GEAC on standard reporting templates for Domain 1.8 Wellness.

Having collected the assessment data from these components of the University Core Curriculum, GEAC analyzed the data, considered recommendations proposed by the assessing departments, and drafted this report to be submitted to the Division of Academic and Student Affairs and the Strategic Planning and Resources Committee.

### III. SUMMARY OF ASSESSMENT REPORTS

Core Requirement	Percent Reported at Level 4	Percent Reported at Level 3	Percent Reported at Level 2	Percent Reported at Level 1	Percent Reported at Level 0
ORAL COMMUNICATION	18.2%	30.5%	25.6%	16.7%	9.0%
WRITTEN COMMUNICATION	5.4%	34.8%	42.9%	8.2%	8.7%
MATHEMATICS (Decision Making)	26.7%	9.9%	35.6%	20.8%	6.9%
MATHEMATICS (Quantitative Literacy)	55.2%	32.2%	8.0%	4.6%	0%
WELLNESS <i>(Beh. Change Journal data)</i>	14.1%	26.7%	24.4%	34.8%	n/a <i>(65.5%)</i> <i>(8.5%)</i> <i>(22.7%)</i> <i>(2.3%)</i>

#### IV. ANALYSIS AND INTERPRETATION

As this report was generated using data from the initial assessment cycle for Kutztown University's new General Education Program, it is impossible to identify longitudinal trends. Rather these data should be seen as a starting point from which future trends can be derived.

Nevertheless, the data presented to GEAC (obtained from a total of 1,948 data points representing student academic performance), and the analyses compiled by the individual departments, reveal strengths as well as areas in which student performance may need to improve.

The data and analyses presented in the areas of Oral Communication and Written Communication indicate that in entry-level General Education courses, student learning outcomes fall below benchmarks set by the respective departments. For example, in both departments, the data indicated that student scores on the appropriate use of research sources and other supporting material fell below benchmark expectations.

In the core area of Mathematics, data from two different courses were used to assess the two domains previously listed. Because the core mathematics requirement is flexible, allowing students to take any course at level 017 or above, the profile of the students in the two courses assessed here may have been different on multiple dimensions including their entry level abilities, majors, SAT scores, COMPASS scores, appreciation of mathematics etc. The sections assessed for Decision Making came from MAT 103 (Fundamentals of Mathematics), a course required for Elementary Education and other majors in the College of Education, while those assessed for Quantitative Literacy came from MAT 181 (Calculus I), primarily taken by Science and Mathematics majors.

In one domain (Decision Making), only 35% of students tested were able to adequately complete the assessment problems. According to the department, possible explanations for this deficit in decision making include a lack of emphasis on Decision Making in the course, artifacts of the research method potentially resulting in lack of motivation to complete the problems well, and deficiencies in instructional resources dedicated to this course.

In the other domain (Quantitative Literacy), student performance was strong, with 87% able to solve the assessment problem set. The Mathematics Department presented some limited longitudinal data for MAT 181 that suggest their use of Supplemental Instruction (SI) may have improved student learning outcomes. The SI program in Mathematics hires high-achieving undergraduate students to provide tutoring services directly related to the curriculum in MAT 181. Although the department would like to expand this program, their limited budget does not allow them to allocate additional resources for this initiative. It is the opinion of GEAC that the SI program shows potential for improving student learning outcomes in mathematics, in a very cost-effective way.

The student data obtained that examined the Wellness domain indicated (with a score of 5.53) that prior to instruction, no students achieved above level 1 which the instructors for the HPD 101, Introduction to Health and Wellness course deemed "Unacceptable." Following the instructional period in which students were introduced to successful processes of behavior change that promote

personal health and wellness including the theory of the "Health Belief Model" and the "Transtheoretical Model of Behavior Change" student scores averaged 6.73 which was approaching level 2 indicating a developing skill. At the conclusion of the course a post-course assessment was conducted to determine the level of cognitive residue retained by students. The post course assessment scores averaged 7.0. It was also noted that among the eight sections reporting data, three sections that had improved from the pre-instructional level either remained the same in the post-course assessment or decreased whereas the other five sections showed improvement in scores from the post-instructional levels to the post-course levels. This would indicate that in these five sections of the course students retained their knowledge related to behavior change. These data raised a question as to why cognitive residue was not in evidence in the remaining three sections. Further examination of the data revealed that the most experienced instructors, who taught the five sections with improved post course scores, continued to reinforce the elements of behavior change beyond the point of instruction in the course. The instructors of this course also concluded that further examination of the texts used in class and instructional materials and assignments was needed in order to standardize, as much as possible, the information and instruction that students receive. Another interesting result was observed because one section of the course supplemented this instruction with a six week behavior change journal project that highlighted and put into practice the components of successful behavior change program and observed a significant improvement in student understanding of the behavior change process. If this result is replicated it might indicate an important means of advancing student learning. It would, however, most likely require a reduction in class size in order to implement such a labor intensive (for both students and instructors) project.

GEAC has also concluded that some work needs to be done to improve the process used to assess student learning outcomes of the General Education Program. For example, two of the three departments submitting data for this assessment cycle established benchmarks for performance. However, these benchmarks were somewhat arbitrarily defined, and differ by department. GEAC thinks it appropriate to consider how benchmarks are established, and would like to see a more systematic approach to establishing benchmarks and for calibration of expectations within departments, colleges, and the university as a whole.

## V. GEAC RECOMMENDATIONS

GEAC has organized our recommendations under three headings, addressing proposed changes to the General Education Program, the allocation of resources for the continuous improvement of General Education, and actions by which we can improve the process by which General Education is assessed at Kutztown University.

### A. Structural and/or Curricular Improvements to the General Education Program

- i. There are insufficient data at this point to recommend structural changes to the General Education Program; however evidence on the inappropriate citation of

references from both English and Communication Studies and Theatre may support exploring the incorporation of information literacy more directly into the General Education Program, either as a requirement for General Education courses or as a co-curricular program. We will continue to monitor this possibility in future assessment cycles.

- ii. One issue becoming evident at this time concerns the frequency and manner in which general education learning goals are introduced and reinforced. For example, there is only one course that is currently known to address the Wellness domain. It is certainly assumed that other courses address wellness, however, at this time we cannot confirm this assumption. It will be important that a curriculum map is obtained to explicitly allow for an examination of where the wellness domain of Goal 1 is introduced across the curriculum at Kutztown University. This curriculum map will, obviously, also help with the assessment of student learning outcomes for the other goals and domains in the General Education Program. The GEAC also wishes to highlight that both curricular and co-curricular experiences assist students in achieving mastery of the General Education learning goals. For this reason, we will need to initiate a campus-wide discussion to consider how to expand assessment efforts to explore the effectiveness of all means of advancing student learning as it relates to our General Education Program.

#### B. Resource Allocation to Improve General Education

- i. Expand the SI program to core mathematics courses in which students fail to meet acceptable levels of learning outcomes. Limited longitudinal data obtained in MAT 181 indicate that the SI program may be a cost-effective method for improving student learning outcomes in core mathematics courses. This finding is consistent with research in the field of higher education indicating the effectiveness of SI programs.
  - a. Therefore, GEAC recommends that additional institutional funds be allocated to support and expand the SI program in Mathematics in order to improve General Education outcomes.
- ii. GEAC further recommends that the Division of Academic and Student Affairs explore, and/or potentially fund, pilot SI programs to determine whether similar improvements in student learning outcomes in other General Education core courses may be realized.
- iii. It is not lost on the GEAC that the initial pilot projects, instrument development, faculty training, faculty stipends, and support for participation in the 2011 AAC&U Summer Institute for General Education and Assessment were funded through the Office of Assessment. GEAC commends the Division of Academic and Student Affairs for funding these efforts and encourages them to continue supporting these endeavors.

#### C. Improvements to Assessment Process

- i. Explore possibility of funding faculty-led workshops to train other faculty on successful assessment procedures.
- ii. As discussed above, GEAC has also concluded that work needs to be done to improve the process used to assess student learning outcomes of the General Education

Program. GEAC thinks it appropriate to consider how benchmarks are established, and would like to see a more systematic approach to establishing benchmarks and for calibration of expectations within departments, colleges, and the university as a whole.

- a. In support of this recommendation, we note that the Division of Academic and Student Affairs has submitted an application to the AAC&U for participation in the 2012 AAC&U Summer Institute on General Education and Assessment to work on benchmarking and other assessment questions.