

# Bowie State University

## Student Learning Outcomes Assessment Report (SLOAR) 2011

### **Part One: Summary of Assessment Activities**

Provide a summary of all institutional assessment activities and guidelines used. Part I should highlight your institution's activities that align with Middle States standard 7, 12 and 14. Include the organizational structure and institutional leadership for assessment activities. Limit to two pages.

Since the 2007 Student Learning Outcomes Assessment Report, a number of changes in assessment practices have occurred. These changes, within and outside of the University, have resulted in an increasing awareness across the entire campus community of the importance not only of evaluating the quality of the student educational experiences, but also of assessing student learning outcomes and the effectiveness of student support services. The University's transformation in this regard was driven by its mission, vision, and strategic plan.

Bowie State University's strategic plan serves as a road map to advance the University's mission of providing an excellent education for all students. Through its undergraduate and graduate programs, the University is focused primarily on enhancing the quality and value of its offerings to students, alumni, and the community. In addition, the University's Core Values of excellence, civility, integrity, diversity, and accountability provide the foundation for decision making and for building a better University.

In addition to the Strategic Plan, the University has several supporting documents that form Bowie's assessment framework. These include the Academic Plan, the Enrollment Management Plan, and the Closing the Achievement Gap Plan. These plans provide the structure for linking Middle States Characteristics of Excellence standards 7, 12 and 14. In addition, external reports including specialized accrediting agency reviews and the USM academic program review cycle are integral components of assessment.

Presently there are two structures addressing assessment of student learning: academic program assessment and general education assessment. Prior to 2009, there was an informal process of programmatic assessment residing in each department. In fall 2009, BSU established a University Student Learning and Assessment Committee (USLAC), which received approval as a standing committee of the Faculty Senate. USLAC supports academic departments in the development and revision of program learning goals, assessment plans, assessment reports, and proposed use of results to improve programs. Based on the review and evaluation of assessment plans and reports, USLAC makes recommendations to the Director of Assessment, who prepares final annual assessment reports in consultation with the deans and the Provost. Going forward, USLAC will continue to provide permanent, faculty-level support for the assessment of student learning.

An essential component of the structure is the linkage with the General Education Review and Advisory Board (GERAB). The Chair of GERAB serves on USLAC and works in close coordination with the USLAC, the Director of Assessment, and the departments to ensure that effective measures and an appropriate assessment schedule are in place.

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GERAB is an ad hoc committee of the Faculty Senate. In 2007-2008, GERAB proposed significant revisions to the general education student competencies in written communication, oral communications, scientific and quantitative reasoning, critical analysis and reasoning, technological competence and information literacy. These will be discussed later in the document. In 2011, GERAB developed a comprehensive framework for general education assessment as part of its work to develop a systematic and sustained general education assessment process (BSU's Academic Plan Objective-6). The general education program is designed to meet certain competencies as required by COMAR guidelines, MSCHE guidelines under Standard 12, and BSU's Strategic and Academic Plans.

The University is currently using course embedded assessments, course evaluation surveys, and the English Proficiency Examination (EPE) as measures of learning outcomes. GERAB is working with faculty with an aim to accomplish the following within each general education course:

- 1) define student learning objectives in accordance with general education competencies (to be accomplished through a course) in a course syllabus;
- 2) use both direct and indirect measures of assessments;
- 3) employ multiple methods of assessment; and
- 4) utilize rubrics for assessment of class presentations, assignments, and participation, and test blueprints for traditional examinations to allow for content analysis of acquisition of general education competencies.

In spring 2011, Bowie State University completed its decennial Middle States review. The work of the University was recognized by the visit team who concluded that Bowie State University met **all** MSCHE standards. The University is fully committed to implementing its Academic Plan and self-study recommendation to systematize an ongoing process of general education assessment.

## Part Two: Four Major Competency Areas

For each of the four competency areas listed below, discuss the institution's current activities. Space is provided for three additional competencies, if applicable. Part Two, including additional competencies, should not exceed 12 pages.

### I. Written and Oral Communication

#### A. Institution's definition of competency

Competency in written and oral communication includes the ability to communicate effectively in verbal and written language, the ability to use a variety of modern information resources and supporting technologies, the ability to differentiate content from style of presentation, and the ability to suit content and style to the purpose of communication.

- a) Analyze and discuss critical issues and recurring themes in the discipline.
- b) Make personal judgments and respond to literature by drawing conclusions and stating opinions.
- c) Make interpretations and present those ideas in writing.
- d) Employ appropriate word choices and diction in oral and written communication.
- e) Use suitable current technologies to demonstrate knowledge of concepts.
- f) Conduct research and evaluate information using the appropriate methods of the discipline
- g) Critically evaluate his or her own work and conduct peer reviews of other classmates' written work.

#### B. Level(s) at which the competency is assessed (e.g., department, program, course)

The English Proficiency Exam is an institutional level assessment tool linked to completion of ENGL 102. In addition, course evaluations and course level assessment are used to evaluate written and oral communications.

#### C. Process(es) used to evaluate competency (i.e., methods, measures, instruments)

##### Written Communication

- I. The English Proficiency Exam (EPE) is the primary measure of student writing skills. As an institutional requirement for graduation, students are instructed to take the exam upon completion of English 102, the second of the required English courses. The EPE, administered by University Testing Services, is a timed (two hour) writing exercise designed to assess a student's writing proficiency. The student selects a topic from a list provided at the examination. On the selected topic, the student must write an essay which contains an introductory paragraph with a clearly stated and relevant thesis, two to four paragraphs of adequate support, and an appropriate and relevant concluding paragraph. The essay is evaluated in terms of development, unity, coherence, clarity/logic, correct grammar and usage, and proper mechanics by a team of faculty using a holistic scoring rubric. Two readers independently evaluate

each essay. If the score varies, a third reader is asked to review. Readers are required to list deficiency areas for students not passing the EPE.

- II. The College of Business (COB) tracks writing competency across courses at the 100, 200, 300 and 400 levels using rubrics appropriate for the course level. The COB found that its students were not as successful on the EPE exam compared to all students taking EPE. In addition, alumni survey data stressed the importance of written communication for workplace success. To improve student learning, the COB has adopted “written communication” as a learning outcome in all major courses. As of fall 2010, the COB assesses written communication skills using well developed rubrics.

#### Oral Communication:

- III. Oral communication is assessed in COMM 101 and COMM 103. Beginning in fall 2009, the Communication Department began a systematic review of its curriculum in light of the changes to the University’s general education competencies. Common course syllabi were developed for COMM 101 and 103 to ensure consistency in learning objectives, content, and presentation requirements as well as textbooks. The Department also rearranged teaching assignments for these two courses so that full-time core faculty had primary responsibility for teaching these courses. The Department reviewed grade distributions as a means as examining improvements.

#### Indirect Measures of Written and Oral Communication

- IV. The results from the Instructor Performance and Course Rating questionnaire provide indirect evidence of the general education curriculum as a whole. The questionnaire is administered each term to all sections of all courses. The course evaluation process is managed through the Office of Planning, Analysis and Accountability under the guidance of the Faculty Evaluation Committee. Results prepared for the Bowie State University Middle States Subcommittee 7 - General Education are provided in section D below.

- D. Describe the results of the assessment work related to this competency.

*Detail results of assessment efforts, and where possible, provide data which demonstrate the assessment outcomes.*

#### Written Communication

- I. English Proficiency Exam (EPE) pass rates are shown below. Pass rates have stabilized at 90% and above since spring 2010. Improvements to the EPE process are described in Section III of this report.

EPE Pass Rates  
Fall 2008 – Spring 2011

	Fail	Pass	Total	% Passing
Fall 2008	69	201	270	74%
Spring 2009	35	440	475	93%
Fall 2009	55	411	466	88%
Spring 2010	24	411	435	94%
Fall 2010	26	477	503	95%
Spring 2011	30	383	413	93%

Source: OPAA

- II. The College of Business (COB) assessed writing across its curriculum for the first time during the fall 2010 semester. A three point rubric (exemplary, acceptable, and unacceptable) was used. Baseline information is shown below. As expected, freshman written communication skills are not as strong upperclassman. The sample size at the 200 level needs to be improved. Students taking MGMT 440 did not benefit from the newly implemented focus on writing. The COB will continue to collect this information and develop improvement strategies in the near future.

College of Business Undergraduate Written Communication Learning Goal Assessment  
Acceptable and Exemplary Score Percentages Fall 2010

	COB - Total	MGMT 101	MGMT 241	FINA 320 & ECON 312	MGMT 440
Paragraphs	88%	85%	95%	90%	81%
Mechanical Errors	88%	85%	100%	93%	74%
Vocabulary	89%	78%	100%	93%	84%
Sentence Structure	83%	64%	100%	93%	74%
Range of Material	85%	66%	100%	92%	84%
Perception/Original Thought	83%	78%	95%	86%	71%
Coherent Arguments	85%	71%	100%	86%	81%
Illustration	76%	72%	n/a	69%	85%
<b>Total</b>	<b>84%</b>	<b>75%</b>	<b>98%</b>	<b>88%</b>	<b>79%</b>
Number of students	182	73	19	59	31

Source: College of Business

Oral Communication:

- III. The Communications Department uses COMM 101 and 103 grade distribution as an indirect indicator of the structural changes it has made to the curriculum. The grade distribution information is inconclusive. Faculty in the Communications Department are working with its GERAB representatives to develop and employ appropriate rubrics to assess oral communication skills.

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Student Success Rates in General Education Communication Courses

Academic Year	COMM 101			COMM 103		
	Total Number of Students	DFW %	% Success	Total Number of Students	DFW %	% Success
AY 2008	1141	17%	83%	127	15%	85%
AY 2009	862	19%	81%	226	16%	84%
AY 2010	781	16%	84%	264	12%	88%

Notes: DFW represents grades of D (Unsatisfactory), F (Fail), or W (Withdrawn)

% Success = Number of students scoring grade 'C' and above/Total number of students excluding students who audited the course.

Source: OPAA

Indirect Measures of Written and Oral Communication

IV. The results from the Instructor Performance and Course Rating questionnaire are shown below. The BSU Middle States Subcommittee 7 – General Education requested OPAA analysis of the course evaluations for general education courses for the self-study report. This was the first time that the data were summarized in this manner. Below are the results contained in the University's Self-Study. It is anticipated that this information will be analyzed on a regular basis as part of the systematic review of the general education program.

The data provided below indicate that, in fall 2008 and spring 2009, of those students expressing a view, the majority reported that their general education courses improved their written and oral communication skills.

Student Evaluation Responses to Questions Measuring  
General Education Written and Oral Communication Competencies

Writing Skills

Course Activities	Always	Often	Sometimes	Seldom	Never
Fall 2008	944 50%	430 23%	299 16%	119 6%	81 4%
Spring 2009	3,309 59%	1,179 21%	684 12%	273 5%	162 3%

Oral Presentation Skills

Course Activities	Always	Often	Sometimes	Seldom	Never
Fall 2008	682 47%	317 22%	222 15%	129 9%	93 6%
Spring 2009	3,008 62%	1,044 21%	462 10%	216 4%	130 3%

Source: OPAA

## II. Scientific and Quantitative Reasoning

### A. Institution's definition of competency

Competency in scientific and quantitative reasoning includes the ability to locate, identify, collect, analyze, and interpret data, and the ability to use mathematics and the scientific method of inquiry to make decisions, where appropriate.

- a) Analyze and understand the physical and biological world.
- b) Solve scientific problems and synthesize scientific information.
- c) Apply scientific methods of inquiry during investigations.

### B. Indicate level(s) at which the competency is assessed (e.g., institutional, program, course) Course

### C. Process used to evaluate competency (i.e., methods, measures, instruments)

The Department of Mathematics initiated a program of course redesign, closely resembling the "the Replacement Model" of NCAT, for one developmental course and three general education mathematics courses:

1. MATH 099: Transition to College Mathematics (Developmental; Spring 2005)
2. MATH 125: College Algebra (Fall 2005)
3. MATH 141: Pre-Calculus 1 (Fall 2007)
4. MATH 116: Introduction to Math Ideas (beginning in Spring 2010)

For example, MATH 099 (four credit hours) was created to replace the former two-course sequence comprising MATH 080 and MATH 090 (a total of seven semester hours). The redesigned course (30 sections in fall 2009) maintains its meeting schedule (MTWR for 50 minutes), with 3 of those days in the regular classroom and 1 day in the instructional lab. The online component of the course is furnished through Hawkes Learning Systems software suite and is required. All tests and quizzes are conducted online and graded automatically. The software tracks the progress of each student and provides ample opportunities for practice of basic skills and certification of mastery. A dedicated tutoring center (the Transitional Math Lab) has been established to help students in need of supplemental instruction. Equipped with 27 workstations and supporting peripherals, the tutoring center is open every weekday from 8 a.m. to 9 p.m. The Transitional Math Lab employs 15 student tutors and 2 full-time lab supervisors.

### D. Describe the results of the assessment work related to this competency.

*Detail results of assessment efforts, and where possible, provide data which demonstrate the assessment outcomes.*

As a result of course redesign efforts for mathematics courses, there has been improved student success in MATH 116 and MATH 141. Course grade results for these two courses are presented below.

Student Success Rates in General Education Mathematics Courses

Academic Year	MATH 116			MATH 141		
	Total Number of Students	DFW %	% Success	Total Number of Students	DFW %	% Success
AY 2008	294	51%	49%	319	68%	32%
AY 2009	323	46%	54%	349	55%	45%
AY 2010	291	45%	55%	340	54%	46%

- Notes: 1. DFW represents grades of D (Unsatisfactory), F (Fail), or W (Withdrawn)  
 2. % Success = Number of students scoring grade 'C' and above/Total number of students  
 3. Total number of students excluding students who audited the course.

Source: OPAA

### III. Critical Analysis and Reasoning

#### A. Institution's definition of competency

Competency in critical analysis and reasoning includes the ability to arrive at reasoned and supportable conclusions using sound research techniques, including inference, analysis and interpretation.

- a) Systematically evaluate facts, opinions, assumptions and theories from the discipline.
- b) Apply skills in analysis, synthesis and problem solving.
- c) Apply logical reasoning in examination and resolution of tasks.

#### B. Indicate level(s) at which the competency is assessed (e.g., institutional, program, course) Course

#### C. Process(es) used to evaluate competency (i.e., methods, measures, instruments)

The GERAB is piloting a strategy to both assess both writing and critical thinking skills through a summary paper. The summary paper is written based on an article distributed by the instructor. The article relates to Bowie State University's emerging issue of global warming or greening. Students are given the article and a set of three critical thinking questions. The first question asks if the article is related to global warming or greening. The second question asks what are the problems discussed within the article. The last question asks what problems are discussed within the article. The students are then asked to write a summary paper describing the problems and solutions and how they affect their areas of study and the environment.



Two faculty members, one teaching a general education course and the other a writing instructor in the English department, collaboratively created this assessment strategy. Web enhanced tools including an online class hosting environment, an online tutoring instruction program called SmartThinking, web sites, web enhanced videos, and PowerPoint slides were incorporated into instruction.

Students in the pilot were assigned three writing assignments: two summary papers based on two different articles and a research paper that focused on computer ethics. The completion of the first summary paper was used as a baseline. The instruction of the second summary was the same as the first summary paper. However, for the second summary students submitted their corrected versions to SmartThinking. The instruction for the research paper was augmented with specific web sites, web enhanced videos and PowerPoint slides that contain content on writing and critical analysis.

D. Describe the results of the assessment work related to this competency.

*Detail results of assessment efforts, and where possible, provide data which demonstrate the assessment outcomes.*

The results of the study indicate that students did improve their writing skills when given the augmented instruction. However, the rubric on critical thinking is in need of revision and additional instructional strategies need to be incorporated.

#### **IV. Technological Competency**

A. Institution's definition of competency

Technological competency includes the ability to use computer technology and appropriate software applications to produce documentation, quantitative data presentations and functional graphical presentations appropriate to various academic and professional settings.

- a) Create a document using word processing software.
- b) Produce a quantitative visual presentation of data using mathematical computation software.
- c) Construct a presentation using presentation software.
- d) Manipulate large amounts of data using a database management system.

B. Indicate level(s) at which the competency is assessed (e.g., institutional, program, course)

Course

Course Evaluations for General Education Courses

C. Process(es) used to evaluate competency (i.e., methods, measures, instruments)

Direct Assessment – COSC 112 and 113

The Department of Computer Science has four general education courses: COSC 110, COSC 111, COSC 112, and COSC 113. Since 2009, the Department has been working to redesign these general education courses to promote increased student academic success levels. For example, the Department redesigned both COSC 112 and COSC 113 to a direct instruction learning environment. The courses were revised using the “Replacement Model” of The National Center for Academic Transformation (NCAT). To monitor student success on course content, students were given a pre-test, final exam, 3 tests, and weekly quizzes. Weekly mandatory tutoring (standard or structured tutoring) worth at least 10% of the students’ grade was given. Tutoring was delivered either face-to-face or online. Students received online tutoring via software available through Angel called Elluminate.

Indirect Measure of Technological Competency

The results from the Instructor Performance and Course Rating questionnaire are shown below.

D. Describe the results of the assessment work related to this competency.

*Detail results of assessment efforts, and where possible, provide data which demonstrate the assessment outcomes.*

Direct Assessment – COSC 112 and 113

The assessment of the pre-test revealed that none of the students in COSC 112 had prior knowledge of the course content. The pre-test assessment for COSC 113 showed that a few students had prior subject area knowledge. The assessment of the pre-test answers as compared to the final exam answers revealed that students did comprehend most of the content delivered in the course for both courses. Students who consistently participated in the tutoring performed better than those who did not.

As a consequence of the course redesign efforts, pass rates in COSC 112 and COSC 113 have consistently increased. Pass rates in these two courses for fall semesters over three years are presented. The course redesign efforts are continuing for all Computer Science general education courses.

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Student Success Rates in General Education Computer Science Courses

Academic Year	COCS 112			COSC 113		
	Total Number of Students	DFW %	% Success	Total Number of Students	DFW %	% Success
FALL 2008	126	48%	52%	31	48%	52%
FALL 2009	121	42%	58%	31	39%	61%
FALL 2010	72	40%	60%	22	24%	86%

Notes: DFW represents grades of D (Unsatisfactory), F (Fail), or W (Withdrawn)

% Success = Number of students scoring grade 'C' and above/Total number of students excluding students who audited the course.

Source: OPAA

Information from Elluminate and face-to-face tutoring were also incorporated into the course assessment. Structured questions were embedded into both types of tutoring sessions. Based on the structured quiz assessments, the results revealed that structured tutoring regardless of delivery did assist the students in comprehending the content material. The test results showed that a repeat of instruction after the quiz improved test results as compared to quiz results of that same structured question. The table below gives the percentage of students that correctly answer the structured question per assessment.

COSC 112 and 113 Structured Question Success Rates

Tutoring	Course	Section	Assessment	Structured Question #1	Structured Question #2	Structured Question #3
Elluminate	COSC 112	Evening	Quiz	0%	5%	0%
			Test	63%	33%	5%
			Final Exam	80%	37%	5%
Elluminate	COSC 112	Daytime	Quiz	33%	52%	7%
			Test	66%	88%	71%
			Final	50%	93%	42%
Face to Face	COSC 113	Evening	Quiz	25%	62%	0
			Test	31%	36%	31%
			Final Exam	38%	50%	43%
Elluminate	COSC 113	Daytime	Quiz	5%	5%	0
			Test	24%	33%	5%
			Final Exam	32%	37%	5%

Source: Department of Computer Science

A Direct Instruction teaching approach proved to be beneficial in addressing cognitive learning and information transfer in COSC 112 and COSC 113. Students who consistently participated in the tutoring performed better than those who did not. All weekly quizzes were announced and given after the students had received tutoring. Students who consistently came to class and took the quiz also performed better in the class than those who did not. The weekly quizzes allowed the students to comprehend information in chunks and to focus on that specific content. Administering weekly quizzes prompted the students to study throughout the week. The quiz scores show

that some students did comprehend the material after a tutoring session. After the quiz, the content material was discussed and reviewed as part of the class lecture.

At the time of the test the students had already seen the structured question a number of times via tutoring, quiz, and additional class lecture on that particular content. The test was given after three quizzes where one quiz was considered a structured quiz. The test scores confirm an improvement in comprehension of the content as compared to the quiz scores.

Students are tested on the structured question a number of times prior to the final exam. Based on the results of the final exam, the percentage of students passing the structured question varied. All of the final exams scores improved over the quiz scores. Most of the final exam scores demonstrated improvement or remained the same as compared to the test scores.

The results of the Direct Instruction approach to teaching indicate that the students retained information and performed well in the course. According to PeopleSoft data, the number of sections offered in fall 2010 for COSC 113 increased by one. Also, the number of sections offered for the next subsequent programming course after COSC 113, COSC 214, increased by one section. Increasing the number of sections indicates retention of students majoring in computer science or computer technology.

Indirect Measure of Technological Competency

The results from the Instructor Performance and Course Rating questionnaire are shown below. The data provided below indicate that, in fall 2008 and spring 2009, of those students expressing a view, the majority reported that their general education courses improved their computer technology skills.

Student Evaluation Responses to Questions Measuring  
General Education Competency – Computer Technology Skills

Course Activities	Always	Often	Sometimes	Seldom	Never
Fall 2008	732 49%	315 21%	226 15%	132 9%	102 7%
Fall 2009	2,788 60%	888 19%	528 11%	239 5%	218 5%

Source: OPAA

### **Part Three: Evolution of Assessment Activities**

Provide concrete examples of how your institution's assessment activities have impacted and/or improved teaching and learning. Also, describe how the assessment of the major competency areas has been integrated into the structure of the institution.

The University's 2010 Academic Plan and the 2011 Middle States Self-Study put Bowie State on a multi-year path to undertake a number of new initiatives for a rigorous assessment of general education program outcomes including the adoption of one national examination and common graded assignments. These measures will help the University ascertain student proficiency in general education courses and take appropriate actions in the form of: realignment and improvements in defining general education competencies and student learning objectives; data collection and analysis; and use of assessment results to make appropriate changes in course structure, pedagogy, and assessment instruments.

Over the past three years, the University undertook a number of initiatives to improve student learning and to build a culture of systemic assessment. Some of these are listed below.

- 1) In fall 2009, BSU established a faculty-senate standing committee, the University Student Learning Assessment Committee (USLAC). This committee is responsible for planning, guidance, and monitoring of student learning outcomes assessment of all academic programs of BSU.
- 2) In 2009, the University hired an Assistant Vice President for Institutional Effectiveness, who leads the Office of Planning, Analysis, and Accountability (OPAA).
- 3) An institution-wide Director of Assessment position who reports directly to the Provost was established in 2010.
- 4) In 2010, the University established a position of Director of Course Redesign, who also reports directly to the Provost.
- 5) In 2010, the University formed the Closing the Achievement Gap (CTG) Committee, which is chaired by the Interim Assistant Vice President for Undergraduate Studies.

All the above staff members and committees are contributing to the general education program improvement and assessment that leads to the organizational structure of general education program assessment as presented in Figure 1. The organizational structure of general education program is driven by the University's mission, COMAR requirements, and MSCHE guidelines.

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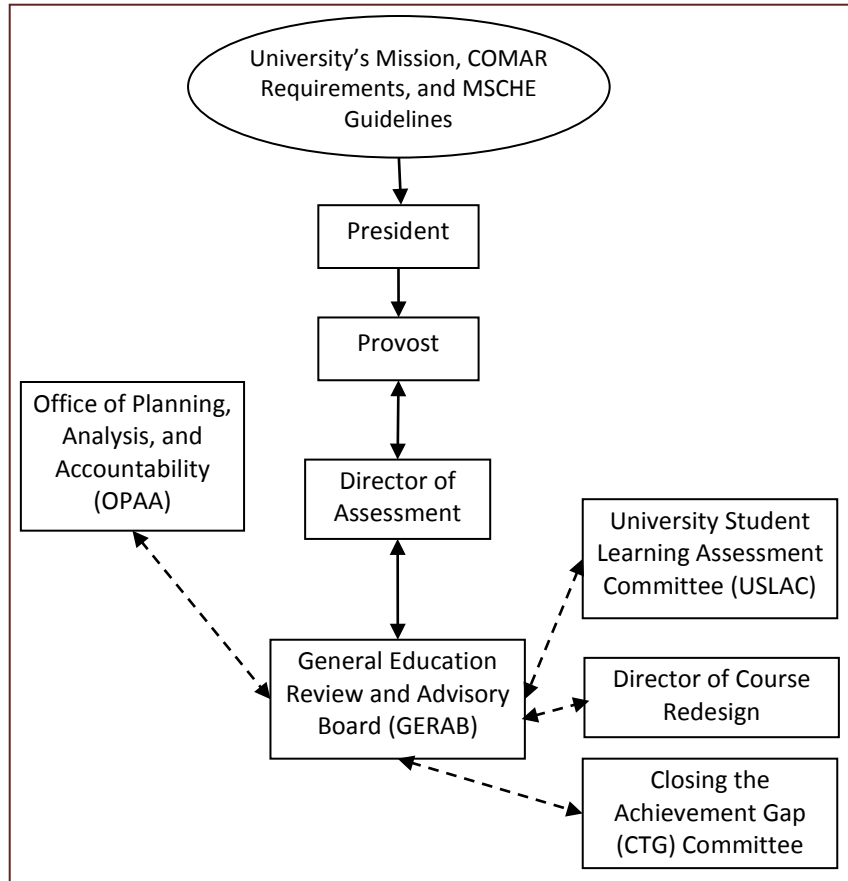


Figure 1. Organizational Structure of General Education Program Assessment System

The culture of assessment is also growing. Assessment related workshops are incorporated into fall and spring faculty institutes. Specialized training sessions for program coordinators were developed to ensure programmatic assessment plan consistency. Workshops focusing on data collection and analysis are planned in the future.

A review of tutoring programs was undertaken in spring 2011 resulting in a number of recommendations encouraging coordination across the various tutoring centers, increased professional development of student tutors, additional hours and stable funding levels. The University Testing Services (UTS), working with the Office of Planning, Analysis and Accountability developed a feedback report to the English Department and its Writing Center on the deficiency areas for students not passing the EPE. UTS is also piloting this year a detailed rubric for the EPE so that students and the Writing Center have better information on student improvement areas and focus Writing Center tutoring services.

BSU has envisioned a multilayered general education program assessment approach. In this approach, GEP assessment is envisioned to be carried out through the national, the institutional, and the course level assessments. The proposed and existing assessment strategies are outlined on the next page in Figure 2.

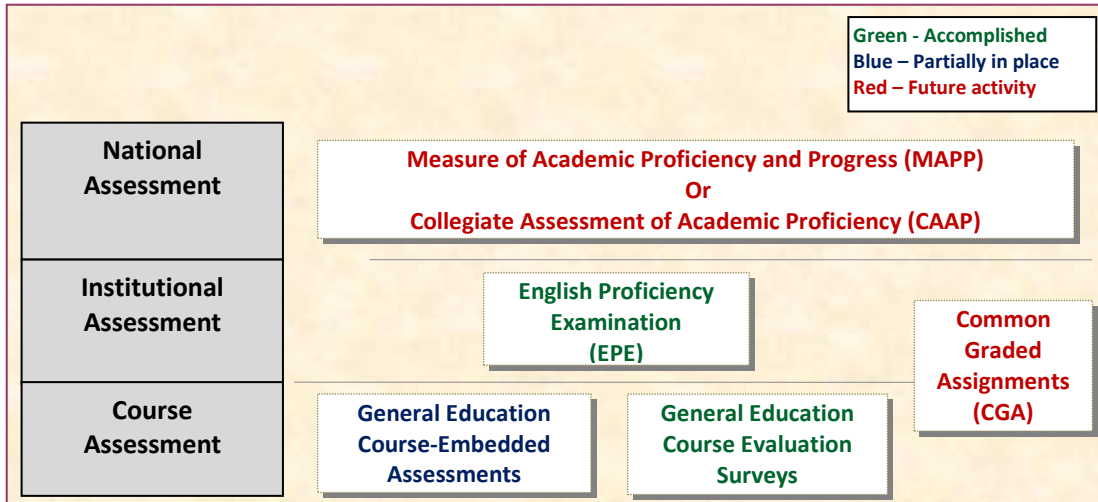


Figure 2. General Education Program Assessment Strategies

This approach will help the University to:

1. assess student proficiency in requisite academic skill areas;
2. address any identified student weaknesses by improving curriculum and instruction;
3. provide an integrated approach to developing major core competencies and GEP competencies;
4. compare the quality of its programs against programs at other institutions nationwide; and
5. measure and document program effectiveness to meet requirements for accreditation and accountability.

Although some of the recommended activities are yet to be approved and adopted, the University aims to implement these or similar activities over the next two years.