

2007 Student Learning Outcomes Assessment Reports

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MARYLAND HIGHER EDUCATION COMMISSION

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Section I. Introduction

Background

As part of the State's performance accountability process prior to 1996, Maryland's public colleges and universities had to develop a plan for the assessment of undergraduate student learning outcomes and to submit annual progress reports to the Maryland Higher Education Commission. When the Commission adopted the system of benchmarked indicators for accountability in 1996, the campuses assumed responsibility for monitoring student learning outcomes. However, the Commission reserved the option of requesting periodic reports from the public campuses on this subject.

Agreement was reached with the Commission's Segmental Advisory Council that the public campuses would provide the Commission with a report on their progress in improving student learning, instructional effectiveness, and curricula every three years beginning in 1998.

When the Commission received the 2001 student learning outcomes assessment reports, it asked the Secretary of Higher Education to convene an inter-segmental workgroup for the purpose of identifying standard ways of measuring the progress made in the education outcomes of students and developing a mechanism for reporting this information. The Commission was especially interested in understanding the impact that these efforts were having on improving undergraduate learning. The guidelines which emerged from the workgroup and adopted for the 2004 reports placed emphasis on the *results* of assessment activities and the use of results to enhance student learning and to improve teaching. A key element of the guidelines was to tie the reports closely to the information which each campus prepares for its Middle States accreditation review. The guidelines for the 2007 report remain essentially the same.

Rationale for Progress Reports

As key stakeholders express concern about the quality of learning taking place in college, increasing attention is being paid to the results of assessment activities. The 2006 report of the Spellings Commission on the Future of Higher Education, spearheaded by the U.S. Department of Education, recommended that postsecondary education institutions should measure and report "meaningful student learning outcomes." Accreditation organizations are asking campuses to provide information about the outcomes of assessment efforts. The Middle States Commission on Higher Education has revised its accreditation standards as they relate to the establishment of learning goals and the assessment of student achievement.

An ongoing process of student learning outcomes assessment serves more than external reporting requirements. Systematic assessment enables colleges and universities to gauge their success in maintaining academic quality, helping undergraduates to improve their skills, and enhancing institutional effectiveness.

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Progress Report Guidelines

The 2007 progress reports focus on each of four competencies related to general education and essential skills identified in Standard 12 of Middle States' accreditation process:

- written and oral communication
- scientific and quantitative reasoning
- critical analysis and reasoning
- technological competency

For each of these competencies, campuses were asked to address the following questions:

1. What is the definition used for this competency at your institution?
2. What direct or indirect measures, methods, instruments and/or analyses are used to assess this competency?
3. At what level(s) does assessment for this competency occur – courses, programs, and/or institutional?
4. If results are available for assessment activities, provide a summary with quantitative and/or qualitative information as appropriate and an explanation of the extent to which the outcome demonstrates that students have achieved college level proficiency in the competency area.
5. Have the results of each of the assessment activities related to this competency been used to enhance teaching and learning as well as academic and strategic planning at your institution? If so, please give examples.

The guidelines acknowledged that the selection of assessment activities and tools for general education competencies and the schedule for their implementation varies considerably across campuses. In addition, campuses are on different timetables with respect to Middle States' reviews, which occur on a five-year cycle for each institution. The reporting of assessment results to the Maryland Higher Education Commission may have not coincided with campus schedules for Middle States accreditation, which would have influenced the ability of institutions to provide information about the results of assessment activities.

This report includes a statewide analysis, by competency, of student learning outcomes assessment activities at the community colleges as well as the public four-year colleges and universities (Section II). The verbatim executive summary of each institution's report along with a college- by-college review by the Commission staff is presented in Sections III and IV.

**Section II. Statewide Analysis of Student Learning Outcomes
Assessment Activities**

The 2007 Student Learning Outcomes Assessment Reports show that a great deal of progress has been made by Maryland public colleges and universities in assessment initiatives since 2004, the last reporting cycle. While there is wide variation in the time and resources institutions have devoted to developing student learning outcomes systems, every college has made measurable steps forward. There is evidence that a “culture of assessment” is being created statewide in higher education. This is very important given the national emphasis on assessment.

The most experienced Maryland campuses have been working on assessment activities for over 13 years, while others are just in their second year of baseline data collection. The changes between what many schools reported in 2004 and 2007 evinces that the process to identify an assessment infrastructure that works for a particular institution often takes time. Institutional assessment infrastructure must match the size of a college or university, as well as its students’ needs. Assessments must also serve to complement the institution’s mission. Once in place, assessment policies and programs can begin to provide invaluable information that advances an institution’s ability to teach—and a student’s ability to learn. Even those colleges and universities in the early stages of formal assessment analysis reported the use of data in enhancing teaching and learning at their campuses.

As in the 2004 reports, some campuses occasionally did not distinguish learning outcomes measures from other institutional accountability and/or process measures. Activities on the following list (some of which were cited in 2004), while providing valuable insights, do not represent learning outcomes:

- Score distributions of placement test results (eg., ACCUPLACER) given to entering students
- Results of surveys of incoming freshmen (often given to gauge students’ level of technological competence)
- Results of faculty surveys to elicit faculty opinion of whether students in their courses achieved proficiency in the subject matter taught
- Student enrollment trends in general education courses and/or other demographic data
- GPA performance of community college students in their first semester at a four year school
- Matrices of general education courses and the outcomes/objectives found on course syllabi

While the efforts above were discussed at length in reports submitted by some campuses, only those activities involving genuine student learning outcomes assessment were examined here.

Community Colleges

Most of Maryland’s community colleges have been formally addressing assessments of student learning outcomes for several years. As a result, all 16 of the state’s two-year institutions have defined general education competencies; a clear majority used organized, well developed learning outcome assessments to measure their students’ ability to meet competency goals. In addition, most institutions also reported how assessment results have been used to enhance

teaching and learning at their college. However, wide variation existed between the colleges' various assessment infrastructures. So while certain institutions reported that assessment analysis has led to the creation of new courses or the revision of existing ones, a few institutions reported that they continued to be focused on the collection of meaningful data. This variation might be due to a college's stage in developing a formal assessment reporting process.

Learning outcomes assessment occurs at all three levels: course, program, and institutional. And almost half of the community colleges reported using at least one institutional-level measure; this is typically the Academic Profile or Measure of Academic Proficiency and Progress (a direct measure) and/or the Community College Survey of Student Engagement (an indirect measure).

Whether reporting course-level assessment results or institutional measures, most schools did not report *trends* in their outcomes data. As noted above, this situation likely resulted from either a nascent formal reporting process at the institution or the cyclical nature of assessment at the institution. Different schools are at different stages in regards to student learning outcomes assessment.

In their reports, community colleges discussed a wide variety of direct and indirect assessment methods. Some of the more common include:

Direct Methods:

- Student writing samples/exams/presentations (all scored by a rubric)
- Portfolio assessment
- Institution-developed proficiency tests (often in the form of an exam)
- Institution-developed pre/post tests
- Nationally-normed standardized proficiency tests
 - ETS Academic Profile or Measure of Academic Proficiency and Progress (MAPP): measures competencies in reading, writing, critical thinking, and math
 - ACT Collegiate Assessment of Academic Proficiency: measures competencies in writing, math, scientific reasoning, and critical thinking

Indirect Methods:

- Grade distributions and/or course pass rates
- Student course evaluation surveys
- Student exit surveys and/or alumni surveys
- Nationally-normed standardized student surveys
 - Community College Survey of Student Engagement (CCSSE): measures reported behaviors correlated with learning

In their reports, community colleges discussed a wide variety of ways in which assessment results have been used. Some of the more common include:

- Revision of course curriculum
- Creation of new courses and/or establishment of prerequisites

- Professional development activities focused on students' needs
- Revision of teaching methods

Written and Oral Communication

As noted in 2004, systems for the assessment of written and oral communication appeared to be the most developed. In addition, many community colleges defined—and assessed—these competencies separately (that is, writing and public speaking/oral communication). Most institutions employed a rubric to assess writing assignments given in their required composition courses. The rubric remains modeled on the *Maryland Standards for a 'C' Paper* approved by the Intersegmental Chief Academic Officers of Maryland's two- and four-year institutions. Rubrics are also used to assess public speaking. In addition, just under half of the community colleges used nationally-normed proficiency exams to assess writing. Many institutions reported on how writing is assessed throughout general education courses, not solely on freshmen composition.

Almost all institutions reported clearly on how results had been used to improve teaching and learning. A few examples of this impact are provided below:

- Carroll Community College, after analyzing program data, instituted a portfolio-based curriculum spanning both its required composition courses. The retention rate of students taking two sequential English courses climbed from 51.8 percent to 61.3 percent.
- Based on its MAPP results for written communication, Chesapeake College has established a "Writing Across the Curriculum" committee to address this competency campus-wide.
- At the College of Southern Maryland, assessment analysis led the Business, Economics, and Legal Studies Department to add English prerequisites for certain gateway courses; early results indicate an increase in pass rates.

Scientific and Quantitative Reasoning

Similar to written and oral communication, many community colleges address scientific and quantitative reasoning abilities separately. All institutions have defined scientific and quantitative reasoning, except for three colleges which provided a definition for science *or* math. The clear majority of schools provided assessment results; most institutions also either reported the use of results to enhance teaching and learning or provided a timeline to do so.

A few examples of the impact of this competency's assessment are below:

- Anne Arundel Community College analyzed success rates for its Math 151 course and connected students' grades to their performance in developmental math or their ACT/SAT score. As a result, the math department adjusted its placement requirements to be certain students are prepared to succeed in the course.
- The College of Southern Maryland revised its lab exercises for an introductory level biology course.

- Howard Community College recently completed a three-year assessment cycle of its General Physics I course. After studying various assessment results, a permanent supplemental WebCT site has been developed. Also, a homework format policy has been implemented to emphasize problem-solving methods.

Critical Analysis and Reasoning

All community colleges have developed definitions for critical analysis and reasoning. With one exception, all institutions also reported significant work in regards to assessing this outcome and using results to enhance teaching and learning.

Most institutions reported clearly on how results had been used to improve teaching and learning. Examples of this impact:

- Hagerstown Community College has developed an interdisciplinary assessment activity that serves as a capstone for administration of justice, nursing, and paramedic students. These departments conduct a mock mass casualty scenario that involves the entire campus; the exercise was developed, in part, to improve students' critical thinking skills. Results from the activity (students are scored via a rubric) are used to modify relevant curricula.
- Analysis of required standardized nursing exams led Harford Community College to focus on "the nursing process phase" of its nursing instruction; course revisions aim to strengthen students' competencies with synthesis questions.

Technological Competency

All community colleges have developed definitions for technological competency. Most have explained the measures used to assess the competency and provided results of these. Most also reported on how results have been used to enhance teaching and learning, or offered a timeline for doing so. This general education area represented a problem for some institutions in that a number of colleges discussed specific computer courses required of students, while others discussed technological proficiency in a broader context. Also, discussion of technological competence often blurred with that of information literacy (that is, campuses expressed concern with students' abilities to conduct research online).

A few examples of the impact of this competency's assessment are below:

- After assessment analysis, Prince George's Community College developed a new introduction to a computers course.
- Concerned by its assessment of students' information management skills, Garrett College has emphasized the integration of various computer technologies in professional development activities in order to promote more effectively technological competence.

Public Four-Year Colleges and Universities

Given the relative inexperience of many of Maryland's public four-year colleges and universities with learning outcomes assessment (when compared to the state's community colleges), their assessment processes have grown considerably since 2004. All four-year institutions have definitions in place for each of the general education competencies. All reported on measures of assessment; most presented the results of these activities. Just over half of the 12 institutions submitting reports were able to give specific examples of how assessment results have been used to enhance teaching and learning in each of the competencies. This improvement is measurable from 2004.

Learning outcomes assessment occurs at all three levels: course, program, and institutional. One indirect, institutional measure is used by almost half of the schools: the National Survey of Student Engagement (NSSE).

Towson University and the University of Maryland, College Park appear to have the most complete assessment infrastructures in place when compared to other public four-year institutions.

University of Maryland Baltimore was not required to submit a report due to its focus on professional and graduate-level education. University of Baltimore submitted a somewhat abbreviated report since its undergraduate programs are overwhelmingly upper-division. However, UB will offer lower division courses for the first time this fall. As such, its report addresses the assessment plans that have been developed for this new endeavor.

Overall, institutions discussed a wide variety of direct and indirect assessment methods. Some of the more common methods include:

Direct Methods:

- Student writing samples/exams/presentations (all scored by a rubric)
- Portfolio assessment
- Institution-developed proficiency tests (often in the form of an exam)
- Institution-developed pre/post tests

Indirect Methods:

- Grade distributions and/or course pass rates
- Student course evaluation surveys
- Student exit surveys and/or alumni surveys
- Nationally-normed standardized student surveys
 - National Survey of Student Engagement (NSSE): measures reported behaviors correlated with learning

When campuses reported how they have used assessment results to enhance teaching and learning, the primary focus was *course revision*.

Written and Oral Communication

Similar to 2004, the assessment of writing was the most developed assessment system at the four-year colleges and universities. All campuses reported on the assessments used, the levels of assessment, and the results. Just over half of the institutions provided concrete examples of how results have been used to enhance teaching and learning.

A few examples of the impact of this competency's assessment are below:

- Frostburg State University will emphasize grammar and punctuation in its ENGL 101 course.
- After analyzing results from a sample of *Writing for a Liberal Education* classes, Towson University revised the curriculum for fall 2006. Among the changes was a greater focus on transitions in writing.
- The faculty senate at University of Maryland Baltimore County approved the requirement of an additional writing course. All students must take “a writing-intensive course in an academic discipline” along with the required freshmen composition class.
- At Coppin State University, assessment results have led the English department to consider developing an English course for underprepared students (a developmental section). New “course coordinators” were also charged with improving course-level assessment in selected English classes.

Scientific and Quantitative Reasoning

Apart from University of Baltimore, which did not assess this competency, all the four-year schools have developed definitions for scientific and quantitative reasoning. Most campuses reported substantively on their assessment work in science and math; all but two campuses offered examples of the way results have been used to enhance teaching and learning.

A few examples of the impact of this competency's assessment are below:

- After reviewing course pass rates, University of Maryland Baltimore County redesigned its chemistry 101 course, establishing the “Chemistry Discovery Center.” The new course emphasizes problem-based and cooperative learning.
- University of Maryland University College used its assessment results when designing a new, online Basic Math Tutorial.
- The College of Chemical and Life Sciences at University of Maryland, College Park determined, after a review of various assessment measures, that departments needed “to work more closely with transfer students” in the areas of science and math.

Critical Analysis and Reasoning

All institutions but one clearly defined the competency of critical analysis and reasoning. Reports discussed the various measures used to assess this area; almost all campuses provided some results. At least two-thirds of the institutions also reported on how assessment results have been used to enhance teaching and learning for this competency.

A few examples of the impact of this competency's assessment are below:

- Frostburg State University, after using a pre/post test this past spring, has asked faculty to “more fully engage students in opportunities for critical thinking” in IDIS 150, a first-year colloquium required of all new students.
- University of Baltimore has strengthened its IDIS 302 course; faculty teaching the course for the first time attend a training seminar and are assigned a faculty mentor. The course emphasizes ethical issues.
- As a result of program review, University of Maryland Eastern Shore has proposed new philosophy courses focusing on logic and ethics in order to strengthen its teaching of critical thinking skills.

Technological Competency

All four-year institutions have defined technological competency. The vast majority discussed the measures used to assess it at their campuses, and/or provided the results of these measures. However, only three institutions provided clear, concrete examples of the impact of assessment results on teaching and learning. University of Baltimore did not address this competency at all since it is viewed as “a competency to be earned prior to attendance.” Of the three institutions that reported on the use of technological assessment results, these are the outcomes:

- At University of Maryland Eastern Shore, freshmen-level computer courses have been redesigned since incoming students were found to be less experienced than previously thought.
- After reviewing baseline assessment data, University of Maryland University College revised its curriculum for IFSM 201, a computer course required of degree-seeking students that ends with the Fluency in Technology Exam.
- An earlier 2003 assessment led Towson University to require a research methods course for its English majors. The course includes the use of technology for literary research.

**Section III. Executive Summaries and Commission Evaluation:
Community Colleges**

Allegany College of Maryland

Institution's Executive Summary of 2007 Learning Outcomes Assessment Report

Allegany College of Maryland's (ACM) general education programs have been designed to meet standards set by external agencies (Maryland Higher Education Commission, Middle States Association) as well as the College's institutional goals. The initial General Education framework (*General Education and Other Essential Core Skills Goals Framework*) was developed in 2002. It depicts how COMAR's goals, Allegany College of Maryland's institutional goals, the College's general education and other essential core skills goals, and individual program goals and course outcomes are all being addressed and integrated.

Nine College-wide skills goals are included in the general education framework. These goals align with Middle State competencies. Individual general education courses, those that fall into one of the five distribution areas as defined by COMAR (i.e., arts and humanities, biological and physical sciences, English composition, mathematics, social and behavioral science), are intended to provide the "foundation" for further study and a "coherent intellectual experience," and each degree program builds on that general education foundation in a unique way. A separate document, the *Student Learning Assessment Framework*, defines assessment and specifies four (4) guiding principles of learner-centered assessment.

With these two frameworks, a matrix was developed for the general education program. This matrix ensures that all graduating students have proficient skills in the nine essential core skills goals identified by the College (communication, computation, community, critical thinking and problem solving, scientific reasoning, information literacy, technology, and interpersonal and personal skills). The matrix also ensures common standards, outcomes, and measures of assessment in the specific general education courses irrespective of the instructor or mode of delivery.

In the 2005 spring semester, a Middle States visiting accreditation team reviewed the General Education Framework and made several recommendations that impacted how the college was conducting General Education assessment. As a result of these recommendations, the college made several changes to its General Education assessment process which involved integrating it into a more comprehensive student learning outcomes assessment process. During the summer of 2005, an Associate Dean of Instructional Services was hired to administer and coordinate student learning assessment, including general education assessment. Also, a Student Learning Assessment sub-committee was created to formalize the Learning Outcome Assessment process in a way that would embed the existing General Education Framework.

The committee recommended a new template which would flow from the academic program areas. The template allows for a consistent reporting format but also provides flexibility for each department faculty to determine proper student learning goals (as identified in appropriate syllabi), benchmarks, and evaluation measures to accurately reflect and document the results of learning. Multiple student learning goals (learning outcomes), related to appropriate program and general education goals, were developed by each program with department faculty determining student learning benchmarks and evaluation measures for each student learning

goal. For General Education courses, the Nine College-wide skills goals included in the general education framework and general education matrices described earlier were modified to fit into the new template.

At the end of the 2006-2007 academic year, all programs will have developed the top priority student learning goals along with the appropriate evaluation measurements. It is the prerogative of the faculty to determine the evaluation instruments that are authentic, valid, and reliable. The evaluation tools are not mandated by the institution or any accrediting body or state agency, but rather developed and utilized by faculty members. The student learning evaluations need to be objective evaluations of learning, and programs can utilize external measures such as student surveys, opinion surveys of alumni, job placement statistics, and industry licensure pass rates as supplemental student learning assessment measures.

At the conclusion of the 2006/2007 academic year, all programs will have completed their student learning templates and provided supporting data. A Student Learning Assessment committee will evaluate, review, and critique the 2006/2007 academic year to provide potential changes and improvements for the 2007/2008 academic year. The student learning assessment process is not a linear process, but rather a cycle that will be repeated each year. The documentation is important, but the results are being and will be utilized for teaching and learning improvement in each program.

MHEC Staff Review of 2007 Student Learning Outcomes Assessment Report

As a result of a spring 2005 visit by a Middle States accreditation team, **Allegany College** has made changes to its general education assessment process. These changes include the hiring of an Associate Dean of Instructional Services and the formation of a Student Learning Assessment sub-committee. According to the report, the 2006-07 academic year saw “the pilot assessment process” and all programs were to submit their results to the Associate Dean of Instructional Affairs.

Allegany College has “nine essential core skills goals” that include the four general education competencies. All general education competencies have been defined.

Results for written and oral communication and critical analysis and reasoning assessments are provided and discussed. Evaluation of English 101 compositions has led to changes in the grading rubric that address students’ documentation of sources.

Results of scientific and quantitative reasoning assessments were not provided; in addition, measures of technological competency were not discussed.

Anne Arundel Community College

Institution's Executive Summary of 2007 Learning Outcomes Assessment Report

Faculty members at Anne Arundel Community College continue to implement the process of student learning outcomes assessment by developing course and program outcomes, creating models of programmatic and classroom assessments, drafting and implementing a variety of rubrics, participating in assessment conferences and workshops, and contributing to aggregate assessment data for the institution. Additionally, at the institutional level, the recently revised college's Strategic Plan (2015@AACC.qual.edu) includes specific objectives to continue our progress with assessment: five of the eight goals in the Strategic Plan include outcomes related to student learning in both the learning and student services areas (Appendix A). Finally, in the college's standard operations, the Learning Outcomes Assessment (LOA) office provides support to faculty and staff in collecting, analyzing and disseminating assessment data/information to the college community. Of special note are new systems and structures that directly impact student-learning success at the college:

Assessment of Learning Integrated into College Culture

A significant addition to the college governance structure in fall 2006 led to the creation of the LOA Subcommittee of the Committee on Teaching and Learning consisting of faculty, department chairs or directors, and a student member. This 12-member team assumed the charge to review the effectiveness of the current assessment process and the existing eight college-wide core competencies.

Assessment of Learning Integrated into Standard Operating Procedures in the Learning Division

The work of the Coordinating Council on Developmental Education (CCDE), which began in spring 2004, monitors the success rate of developmental students in required developmental courses and in subsequent credit courses in the disciplines for which they require remediation. The chairs monitor the results of these studies and implement modifications that impact student learning in targeted courses. Similarly, chairs monitoring the student success rates in certain foundational courses add or modify pre-requisites to these, after the CCDE's review, to encourage deeper student learning. For example,

- The Visual Arts department student success rates in Introduction to Fine Arts: students who did not complete their developmental course requirements had a pass rate 27-34% compared to 52-60% for those who completed developmental courses. The department established a requisite eligibility for credit Composition and Introduction to Literature 1 for students seeking entry to HUM 101.
- The Mathematics department studied the success rates for first time MAT 151 (credit, pre-calculus) students entering with various eligibilities, such as direct placement in the course based on SAT/ACT scores or completion of developmental math courses. The review process resulted in a new course, College Trigonometry and Analytic Geometry, developed especially to meet the needs of targeted students. By making the placement requirements tighter, the department seeks to improve the MAT 151 success rates.

Learning Assessment Progress

Development of learning outcomes in courses and programs: 28 out of 31 degree programs listed in the AY 2006-2007 catalog have stated program outcomes; 81 of the highest-enrolled general education courses out of total 207 general education courses and 131 discipline-specific courses have stated course outcomes. As additional courses are proposed for general education eligibility, they are routinely accompanied by outcomes documents as part of the Educational Policies and Curriculum (EPC) Committee's approval process. These documents are available on the college intranet for review and use by both full-time and part-time faculty.

Use of Instructional Design software: faculty members continue to use the Worldwide Instructional Design System (WIDS) software as a tool to develop and maintain a database of learning outcomes for courses and programs. WIDS requires a performance-based outcomes approach to course development.

Assessment at the institutional level:

- A Faculty Assessment Team in AY 2004-2005 developed and used a rubric to assess speaking skills of students across the disciplines;
- Faculty in seven disciplines completed a pilot project on Critical Thinking skills assessment resulting in a number of rubrics and models.

Assessment reporting: since 2004, of 33 departments, at least two thirds have reported their assessment results every year at course and/or program levels as linked to the college's eight core competencies.

Dissemination of assessment information to students: the college published details on learning outcomes assessment in the *Student Handbook 2006-2007*.

Assessment-related grant-funded projects:

- In AY 2006, faculty members teaching in Business, Education, Mathematics, and Nutrition received a mini-grant from the organizers of the FIPSE-funded Quality Matters Project to gauge the effectiveness of courses in hybrid formats on student learning outcomes.
- Beginning fall 2005 the college has been collaborating with 23 community and technical colleges nationwide in a Lumina Foundation-funded project, *Innovation and Inquiry for Student Learning* (IISL), coordinated by Alverno College to encourage participants to share their best assessment practices and to develop strategies for increased faculty and student engagement in assessing student learning outcomes.

Culture of Assessment

As earlier noted, the **LOA Subcommittee** has led the college in planning and prioritizing:

- Review of the core competencies for relevance and adequacy;
- Evaluation of the current assessment processes; and,
- Clarification the language of assessment to all stakeholders

The Educational Policies and Curriculum Committee (EPC) continues its pivotal role for ensuring that learning outcomes for courses and programs are set at the department level.

Assessment of student learning in Student Services: student services professionals at AACC have been active in developing learning outcomes in a consortium relationship with other Maryland community colleges to develop methods and tools, such as rubrics, to assess learning outcomes that are linked to one or more of the eight college core competencies through an array of services, including financial aid and advising, for example.

Since the 2004 SLOAR, faculty members at AACC have gained significant experience in assessing student learning. Their interest in undertaking an evaluation of the current assessment process and a review of college-wide core competencies is an affirmation of the commitment of AACC to assessing out students' learning.

MHEC Staff Review of 2007 Student Learning Outcomes Assessment Report

The assessment of student learning outcomes at **Anne Arundel Community College** is linked to eight college-wide core competencies (the four general education competencies are included). An Office of Learning Outcomes Assessment "facilitates and coordinates the assessment process" at AACC.

Definitions of each competency, as well as assessment results and their impact on the classroom, are discussed in detail in the report. To cite just one example: BIO 103 faculty assessed students' scientific and quantitative reasoning through a review of lab exercises, other lab assignments, and tests. Since one of the outcomes had a low achievement rate (74%), the department is reviewing the lab books used and revising the syllabus.

Examples of various rubrics used to directly measure certain competencies were provided in the report. These included one for oral communication, as well as three different rubrics used to assess critical thinking skills.

Not only does Anne Arundel assess student learning outcomes in the classroom, but the college also articulates outcomes in certain student affairs programs. A new student orientation rubric, for example, delineates certain competencies and learning outcomes that the school's orientation program hopes its participants achieve. A survey functions as a tool by which the program can measure whether or not participants have benefited from orientation.

One final note: the school's commitment to enhancing its teaching is also evidenced by a faculty professional development program. One of the program's modules addresses formative strategies for classroom assessment.

Baltimore City Community College

Institution's Executive Summary of 2007 Learning Outcomes Assessment Report

The College's mission has changed slightly since the 2004 Report; the revised mission is as follows:

Baltimore City Community College (BCCC) provides educational, cultural, and social experiences to the citizens of Baltimore, the state of Maryland, and surrounding areas. The College's accessible, affordable, comprehensive programs include college transfer and career preparation, technical training, and life skills training. The College provides a variety of student services that meet the learning needs and support for an increasingly diverse student population. BCCC is a dynamic higher education institution responsive to the changing needs of its stakeholders: individuals, businesses, government, and educational institutions of the community at large.

BCCC remains committed to meeting the objectives of Middle States Association's standards and fulfilling the College's mission. Therefore, BCCC has a variety of outcomes assessment activities underway throughout the College in each of the four competencies related to general education, institutional assessment, and the assessment of student learning outcomes as stated in Standards 7, 12, and 14 of Middle States' accreditation process. In the past three years, the College:

- established a subcommittee of the Strategic Planning Committee to address Student Learning Outcomes Assessment;
- produced a Strategic Plan for the Development of Student Learning Outcomes Assessment for 2005-2010;
- implementing a search for a full-time Coordinator for Learning Outcomes and Assessment.
- reconstituted a College-wide Student Learning Outcomes Assessment Committee led by a faculty chairperson in order to update the Student Learning Outcomes Assessment Strategic Plan.
- undertook several new analyses this year to assist in the measurement and improvement of student learning outcomes, including item analysis of performance on final examinations in selected key courses, as well as analyses of the performance of students in subsequent courses after they had successfully completed developmental courses.

This report is organized by competency with responses organized by program or course groupings following each of the questions put forth in the MHEC guidelines.

Competency 1: Written and Oral Communication

For English courses, written communication is defined by the ability to establish a clear purpose, develop a purpose with adequate and pertinent evidence, adapt a presentation to a range of audiences, and master the conventions of standard written American English. Writing is taught as a recursive process that includes invention and discovery, peer and instructor review of drafts, multiple revisions, and editing. Writing is taught as a recursive process that includes invention and discovery, peer and instructor review of drafts, multiple revisions, and editing. Oral

communication is defined as an understanding of the communication process through speaking; developing proficiency as an oral communicator, both as a source and as a receiver; and acquiring and utilizing theoretical concepts and historical information relevant to the communication process in regard to interpersonal communication, interviewing, informative and persuasive speaking. The College remains committed to the importance of improving written and oral communication skills throughout the student body and the various disciplines. Although definitions vary somewhat by course or program area as appropriate, students will be able to write effective, organized, clear, and grammatically correct English for a specific subject, purpose, and audience.

Among the disciplines, written communication skills are measured through such activities as quizzes and tests, essays and reports, and journals. For example, in Mathematics and Engineering, elements of written communication include explaining via words the meaning of a graph and the analysis and conclusions drawn from data and graphs; explaining the process used to solve a mathematical/engineering problem; and using correct English prose in projects, research papers, writing assignments, and journals. In Allied Human Services students must use written communications skills within the discourse conventions of the disciplinary fields as well as within differing cultural contexts. In Nursing, this undertaking is an interactive process that involves sharing ideas, attitudes, and feelings for the purpose of being understood and understanding others.

Oral communication skills are commonly assessed through student presentations, participation in group presentations, and demonstration of an understanding of the principles of interpersonal and public communication. For example, elements of oral communication in Mathematics and Engineering include explaining to the class or another student the process to solve a problem, the meaning of a graph, a mathematical concept, or an engineering principle. In Biological and Physical Sciences, students must be able to narrate in scientific language/terms results.

Assessment measures occur at course, program, and institutional levels depending on the discipline. Examples include quizzes, tests, essays, reports, oral presentations, lab reports, lab notebooks, research papers, portfolio/programming documentation (coding and flow charts), case studies, nursing care plans, teaching plans, and term papers. Additionally, licensing exams are required for selected programs. Course passing rates are compiled on a semester basis. More importantly, BCCC staff conducted an item analysis of students' performance on the final examinations in selected developmental writing courses; examples of such analyses are distributed throughout the report and in the Appendix.

Throughout the disciplines, assessment results are used to identify the faculty's training needs; standardize and revise syllabi; review textbooks; increase group discussions; and invest in software and other resources, including tutorial programs. The item analysis conducted for samples of writing courses makes it possible for faculty to identify those skills that require special attention through additional instruction, practice, selection of instructional materials, etc.

Competency 2: Scientific and Quantitative Reasoning

The College's commitment to integrating scientific and quantitative reasoning into its curricula is evident throughout the disciplines. Again, the definition for this competency varies by discipline but commonly includes an emphasis upon improving skills in data collection and various

mathematical applications and analyses. In Social and Behavioral Sciences, the data collection and analysis relate to socio-political and socio-economic topics and trends. In Mathematics and Engineering, elements include judging whether an answer is reasonable; analyzing and interpreting graphs or diagrams; using estimation to predict results; and producing mathematical models to depict real-life situations. An additional element in the Business and Technologies is statistical methods to solve problems. In Allied Human Services, students must analyze, synthesize, reflect, evaluate, and provide solutions using appropriate quantitative strategies. For the Nursing Program, scientific reasoning is defined by the nursing process; a specialized, systematic form of problem solving that provides a basis for assessing, planning, implementing, and evaluating nursing care for clients.

Methods of assessment include quizzes and tests, departmental final exams, proctored tests, portfolio/notebook assessment of student work, presentations, lab work, the Comprehensive Achievement Profile Exam (Nursing), and student data collection and analyses in various mathematical applications. This spring, selected faculty and staff conducted an item analysis of students' performance on final examinations in samples drawn from all three developmental mathematics courses; again, examples of these analyses are distributed throughout the report and in the Appendix.

As with written and oral competencies, scientific and quantitative reasoning skills are assessed at the course and program levels, depending on the discipline. Additionally, licensing exams are required for selected programs. Course passing rates are compiled on a semester basis. For developmental courses, students who passed one level are tracked as they attempt the next level, thereby helping to ensure that improvements in passing rates will contribute to better outcomes in future courses.

Throughout the disciplines, assessment results are used to identify the faculty's training needs; standardize and revise syllabi; review textbooks; and invest in software and other resources, including tutorial programs. The item analysis for the three developmental mathematics courses should yield improvements in student learning outcomes through a review of methods and materials used to teach the specific skills that are most frequently missed by students.

Competency 3: Critical Analysis and Reasoning

The definition of critical analysis and reasoning tends to be more discipline-specific. In Mathematics and Engineering it includes recognizing the nature of the problem and selecting an appropriate strategy for solving it; developing alternative strategies; pattern recognition and analysis; testing a statistical hypothesis; and using estimation. In Social and Behavioral Sciences, it includes the ability to evaluate evidence by differentiating among facts, opinions, and inferences. Students will be able to think critically and analytically to solve problems using basic research, analysis, and interpretation. In Biological and Physical Sciences, it includes the ability to process, conceptualize, apply, analyze, synthesize, and evaluate information to make inferences. In Business and Technology, it includes the ability to analyze and assess information by using critical thinking to solve problems and participate in strategic planning. In Allied Human Services, it is the ability to evaluate evidence by differentiating among facts, opinions, and inferences. In Nursing, it is a process of active inquiry that utilizes scientific reasoning and

problem-solving skills in acquiring and applying a body of knowledge necessary for the formulation of accurate nursing decisions.

Methods of assessment include proposing a solution to a problem, writing a position paper, lab reports, lab notebooks, portfolio assessments, designing and testing mathematical models, the Critical Thinking Process Test (Nursing), and ratings of student skills in the context of class activities, projects, and class discussions.

As with written and oral competencies, scientific and quantitative reasoning skills are assessed at the course and program levels, depending on the discipline. Course passing rates are compiled on a semester basis. Licensing exams are required for certain programs. The item analysis of students' performance on the final examination for MAT 82 is strongly related to this competency; this analysis identified 23 specific competencies where less than half achieved full credit.

Throughout the disciplines, assessment results are used to identify the faculty's training needs; standardize and revise syllabi; review textbooks; invest in software and other resources, including tutorial programs. Use of the results has also helped in the attainment of accreditation for many programs and will help the College to maintain accreditation standards. Analysis of students' performance on the final for MAT 82 will help faculty identify those areas where additional instruction, supported by appropriate materials and practice, is warranted. Analysis of results from the Critical Thinking Process Test in Nursing have led faculty to monitor more carefully certain areas to determine if curriculum changes are necessary.

Competency 4: Technological Competency

All BCCC graduates must meet the College's Computer Literacy Requirement in order to receive a degree or a certificate. Students can meet this requirement in three ways: enrolling in specific major; taking one of a variety of computer courses and passing with a "C" or better; or passing the College's Computer Literacy Test with a grade of at least 70%.

Across the disciplines, students are expected to develop the ability to select and apply appropriate technology to advance their learning and productivity. Technological methods range from use of word processing programs, doing research online, use of graphing or scientific calculators, use of mathematical or statistical software, use of measuring devices, use of drafting equipment, and the integration of multi-media activities and simulations. Effective use of other discipline-specific equipment and computer hardware is also assessed.

Methods of assessment include quizzes and tests, portions of tests that require the appropriate use of scientific or graphing calculators, use of specific software as a research tool, portfolio/notebook assessment, use of the Internet for assignments, and documentation of effective use of office equipment, etc. In the Apparel Technology program, students are evaluated on their ability to use electronic sewing equipment to construct clothing. In the Office Technology, Computer Information Technology, and Electronics/Telecommunications programs, students must demonstrate knowledge of specialized software and equipment to master the skills required to work in the industries. Similarly, Nursing students must utilize the computer

documentation system during their clinical experience and use electronic medical equipment to master skills specific to the nursing field.

As with the other competencies, technology skills are assessed at the course and program levels depending on the discipline. Course passing rates are compiled on a semester basis. As mentioned, all BCCC graduates must meet the College's Computer Literacy Requirement. If they attempt to meet this through a selected computer course or through the College's Computer Literacy Test, they must earn a "C" or a 70%, respectively. As part of program accreditation requirements, the Business and Technology division conducted surveys of graduates which asked specific questions regarding technology skills.

Since the last report, based on assessment results the College has expanded its distance learning offerings to include developmental courses, courses across all disciplines, and the completion of a full program via distance learning (Law Enforcement). The growth of "smart classrooms," and the number of open computer laboratories (as well as the upgrading of hardware and software) have come as a result of the increasing demand for technologically competent students. The BCCC Library has increased its ability to provide online research technology to enhance the research capabilities across the College. Throughout the disciplines, assessment results are used to identify the faculty's training needs; standardize and revise syllabi; review textbooks; and invest in software and other resources, including tutorial programs. Assessment results have also led to faculty, staff, and students being trained in the most effective methods of presenting lectures, presentations, and conducting research in developmental and credit English and mathematics courses. As a result of some of the direct measures in the Nursing program, staff have recommended a revision of the Nursing admissions policy relating to use of computer technology.

Over the past year, BCCC has undertaken a series of initiatives to improve the assessment of learning outcomes, the analysis of outcomes data, and the application of these analyses to the teaching process. The report and the Appendix give numerous examples of these analyses and illustrate the increasing utilization of direct, rather than indirect measures. BCCC is committed to expanding this undertaking in the future to ensure that student learning outcomes are assessed effectively and that the results are used for improving teaching and learning.

MHEC Staff Review of 2007 Student Learning Outcomes Assessment Report

Since 2004, **Baltimore City Community College** has established a subcommittee of the Strategic Planning Committee to address student learning outcomes and is currently searching for a Coordinator of Learning Outcomes and Assessment. In its report, each academic department and program discusses their own learning outcomes initiatives to varying degrees.

All four general education competencies are defined. Most assessment measures are at the course level and course pass-rates are most often cited as results. The English department, however, uses a rubric to measure written communication competency (rubrics to assess quantitative reasoning and technological competency are in development). The Nursing program uses the Critical Thinking Process Test (ERI) to assess student's critical analysis and reasoning

competency. The test is administered to first and fourth semester students; based on results from a recent exam (fall 2006), “the faculty will monitor the students during the next academic year to determine if curriculum changes are needed.”

Carroll Community College

Institution's Executive Summary of 2007 Learning Outcomes Assessment Report

This report highlights Carroll Community College's efforts toward defining and assessing student learning in each of the four general education competencies identified in Standard 12 of Characteristics of Excellence by the Middle States Commission on Higher Education.

Over the past decade, Carroll Community College has demonstrated an increased commitment to and understanding of learning outcomes assessment. Early initiatives in this area have included clarifying and standardizing course level objectives, developing the Core Competencies (a set of knowledge, skills, and abilities to be acquired during the Carroll experience), redesigning the program review process, and implementing a process for program level outcomes assessment. Carroll continues to refine its understanding of the meaning and purpose of learning outcomes assessment.

Carroll Community College assesses learning at the course, program, and institutional level. These assessment activities are integrated and complementary. At the course level, all course sections share common course objectives and collect standardized outcomes data. Some course level objectives feed into objectives at the level of the program, discipline, or general education area. Program level assessment aggregates the objectives and assessment activities at the course level and integrates the achievement of the Core Competencies as they relate to the program area. A program may be a degree program or certificate, a set of classes meeting a specific general education requirement, or a discipline or function. Institutional assessment focuses on measuring and responding student mastery of the Core Competencies across the general education curriculum and at the institutional level. These complementary activities provide for a comprehensive learning outcomes assessment process.

General Education goals have been assessed at the institutional level through the administration of the Academic Profile and other, internally developed, assessment tools, and also at the program and course level. Currently, the college has eight general education Core Competencies, listed below:

- **TECHNOLOGICAL APPLICATION:** the ability to effectively use computer terminology, software, and hardware.
- **INFORMATION LITERACY:** the ability to recognize information needs and to be able to locate, evaluate, and use effectively the retrieved information.
- **ORAL COMMUNICATION:** the ability to effectively articulate verbal content formally or informally.
- **WRITTEN COMMUNICATION:** the ability to express ideas in writing.
- **MATHEMATICS:** the ability to assess the validity of mathematical information, to define, represent, and solve mathematical problems, and to communicate mathematical reasoning symbolically and verbally.
- **READING:** the ability to "capture" ideas and facts from text.
- **CRITICAL THINKING:** can include any, or all, of the following core thinking skills: analysis, synthesis, evaluation, problem-solving, decision making, creative thinking, and metacognition.

- **SOCIAL AND CULTURAL AWARENESS:** to understand the influence of culture and the natural environment on the behavior of individuals and groups.

At the level of the general education program, each of the Core Competencies are assessed in multiple disciplines.

Middle States identifies four competencies, closely related to Carroll's Core Competencies.

Middle States Competency	Carroll Core Competency
Written and Oral Communication	Written Communication
	Oral Communication
Scientific and Quantitative Reasoning	Mathematics
Critical Analysis and Reasoning	Critical Thinking
Technological Competency	Technological Application

This report highlights Carroll Community College's efforts toward defining and assessing student learning in each of the four general education competencies. For each competency, we will describe how the learning goal is defined by our institution, the *method* (both tool and level) used to assess the competency, the *results* of the assessment process, and *changes* to the curriculum made in response to outcomes data.

Written and Oral Communication

Carroll Community College values written and oral communication as key goals of the general education curriculum. For purposes of assessment, written and oral communication are defined and assessed separately.

Written Communication

Benchmark data for Written Communication was collected at the institutional level through the administration of the Educational Testing Service's Academic Profile to incoming students in 2001 and to students with 30 or more credits in spring 2002. The college plans to follow up on this assessment data by administering the Educational Testing Service's Measure of Academic Proficiency and Progress (MAPP), beginning in 2008. In the Fall 2001 sample of incoming students, the mean sub-score for College Level Writing was 113.0 on a scale of 100 to 130, placing Carroll's incoming students in the 50th percentile nationally of freshmen at Associates of Arts institutions. Criterion-referenced scores indicated that 29% of incoming students had not achieved Level 1 proficiency, while 21% had reached at least Level 2 proficiency (college level writing). While this data suggest that Carroll's incoming students are reasonably well prepared for college level writing, the sub-scores for students with 30 or more credits raise some concerns. Among the Spring 2002 sample of students with 30 or more credits, the mean norm-referenced sub-score was 114.1 placing Carroll students in only the 21st percentile nationally of sophomores at Associates of Arts institutions. While the mean score has increased from the sample of incoming students to the sample of more experienced students, the increase was less than what was expected. In addition, criterion-referenced scores indicated that 22% of the spring sample had not achieved Level 1 proficiency, while 16% had reached at least Level 2 proficiency

(college level writing). Although transfer of some higher performing students prior to receiving 30 credits may explain some of this perceived slide, the data still raises some serious concerns.

Written Communication is also assessed annually in the following general education programs:

- Written Communication
- Mathematics
- Biological and Physical Sciences
- Humanities
- Fine Arts
- Social Sciences

In addition, Written Communication is assessed in many programs outside of the general education program. Results and changes in response to these results are discussed in detail within the full text of the report.

Oral Communication

Oral Communication is assessed annually in the following general education programs:

- Speech
- Biological and Physical Sciences
- Social Sciences
- Health and Wellness

In addition, Oral Communication is assessed in many programs outside of the general education program. Results and changes in response to these results are discussed in detail within the full text of the report.

As a result of outcomes collection and evaluation in speech courses, many changes have been made which have produced better course level results. Students exhibited difficulty in organizing their ideas with adequate supporting details and the use of effective transitions. Speech packets with directions for each format were revised with explicit directions and example outlines. In addition, teachers started including outlining workshops in their classes and created peer evaluation checklists for students to evaluate their outlines prior to delivering their speeches. MLA citation was also a problem. The class now has formal library instruction classes each semester and the use of Noodle Bib (tool for documentation) is presented. Some progress has been made in this area but many students continue to struggle.

All students improve through out the semester with delivery skills. The greatest gains are with volume control, rate, articulation, and vocal inflection. The use of gestures has also improved. Although it shows satisfactory progress, the weakest area is in eye contact remaining scanning and direct and students using a conversational manner in presentations. Strides have been made in students controlling anxiety and appearing composed. These scores could improve even more if students would practice more prior to presentations. At the class level, we have added 2 practice speeches and impromptu speaking which has helped students gain confidence and produced good results.

Scientific and Quantitative Reasoning

Benchmark data for mathematics was collected at the institutional level through the administration of the Educational Testing Service's Academic Profile to incoming students in 2001 and to students with 30 or more credits in spring 2002. Among the incoming students tested using the Academic Profile in Fall 2001, the mean mathematics sub-score was 112.7 (on a scale of 100 to 130), with a confidence band of 106 to 120. This score is above the national mean for freshman students at two and four year institutions, placing students in the 73rd percentile nationally for freshmen at Associates of Arts institutions. However, among the Spring 2002 sample of students, the mean score was 113.9, placing students in the 53rd percentile nationally among sophomores at Associates of Arts institutions.

The Academic Profile also assesses mathematics in criterion-referenced scores. Among incoming students in Fall 2001, 31% failed to reach Level 1. 69% of the incoming students achieved the Level 1 proficiency level and 33% reached Level 2 proficiency. The spring sample of more experienced students actually reflected slightly lower performance. Although transfer of some higher performing students prior to receiving 30 credits may explain some of this perceived slide, the data still raises some serious concerns. The college plans to administer the successor to the Academic Profile, MAPP, during the 2008/2009 academic year.

Mathematics is assessed annually in the following general education programs:

- Mathematics
- Biological and Physical Sciences

In addition, Mathematics is assessed in many programs outside of the general education distribution. Results and changes in response to these results are discussed in detail within the full text of the report.

Critical Analysis and Reasoning

Benchmark data for critical thinking was collected at the institutional level through the administration of the Educational Testing Service's Academic Profile to incoming students in 2001 and to students with 30 or more credits in spring 2002. The college plans to follow up on this assessment data by administering the Educational Testing Service's Measure of Academic Proficiency and Progress (MAPP), beginning in 2008. The Academic Profile measures Reasoning and Problem Solving through both norm-referenced and criterion-referenced sub-scores for critical thinking. In the Fall 2001 sample of incoming students, the mean sub-score for Critical Thinking was 109.6 on a scale of 100 to 130, placing Carroll's incoming students in the 69th percentile nationally of freshmen at Associates of Arts institutions. Criterion-referenced scores indicated that 24% of incoming students had not achieved Level 1 proficiency, while 34% had reached at least Level 2 proficiency (college level analysis). Among the Spring 2002 sample of students with 30 or more credits, the mean norm-referenced sub-score was 111.8 placing Carroll students in the 65th percentile nationally of sophomores at Associates of Arts institutions. In addition, criterion-referenced scores indicated that 32% of the spring sample had not achieved Level 1 proficiency, while 26% had reached at least Level 2 proficiency.

Critical Thinking is assessed annually in the following general education programs:

- Mathematics
- Biological and Physical Sciences
- Humanities
- Social Sciences
- Health and Wellness

In addition, Critical Thinking is assessed in many programs outside of the general education program. Results and changes in response to these results are discussed in detail within the full text of the report.

Technological Competency

Carroll Community College conducted an initial assessment of students' technological skills during the 2003/2004 academic year. Assessment occurred in the context of selected courses through an instructor-designed tool that required students to apply technological skills to complete an activity related to the course content. Courses and sections were chosen so that a majority of the students sampled had completed 30 credits or more at our college and so that the sampling evenly represented the various disciplines across the institution. The Technology Assessment Group then established initial goals or expectations about the percentage of students that would master each skill area.

Assessment results from the fall 2003 semester indicated that overall, students exceeded the Technology Assessment Group's expectations. Students were most successful using word processing tools and least successful using the spreadsheet. In spite of the seemingly positive results, there is a need for further evaluation. The results do not distinguish between students who had the requisite technology skills before entering Carroll from those who acquired the skills while attending. As such, there is a need to assess the skill levels of entering students. With this information, faculty will be better equipped to take advantage of the skills that students already have. In addition, although students were generally successful and exceeded the expectations of the committee, there are still students without the expected skills. The college needs to develop a process through which these students are identified and provided with an opportunity to develop the technological skills that are expected for further academic study and gainful employment. While most faculty seemed comfortable with technology, there were a minority of those involved who were reluctant to participate, not having the technological skills themselves. Carroll Community College needs to provide opportunities for faculty, both full- and part-time, to assess and develop their technological competency. Finally, the assessment process needs to be more structured the next time: most assessments were well designed, but a few failed really to test the skill area.

Technological Application is assessed annually in the following general education programs:

- Mathematics
- Computer Literacy

In addition, Technological Application is assessed in many programs outside of the general education program. Results and changes in response to these results are discussed in detail within the full text of the report.

MHEC Staff Review of 2007 Student Learning Outcomes Assessment Report

Carroll Community College assesses eight general education Core Competencies across various disciplines. The Middle States and MHEC general education competencies are included and defined, except for scientific reasoning (only quantitative reasoning is defined).

At the institutional level, CCC has used the Academic Profile (ETS); this direct measure will be replaced by the MAPP (Measure of Academic Proficiency and Progress) in 2008-09. Other direct measures are also used to assess student learning outcomes. For example, English faculty have implemented a portfolio assessment of students' writing in English 101 and 102 to determine how well the department is meeting its own objectives for written communication. The use of a portfolio-based system of assessment has increased the retention rate of students who take the writing courses sequentially.

Results for assessments in each of the general education competencies were discussed, as well as how these results have been used to enhance teaching and learning at the course and program level.

Cecil Community College

Institution's Executive Summary of 2007 Learning Outcomes Assessment Report

Assessment of student learning and institutional effectiveness permeates all planning efforts at Cecil Community College. Our Institutional Assessment Plan includes the following objectives which serve as the overarching priorities for student learning outcomes measures:

- Develop and implement student learning outcomes across the curriculum to insure that each learner who enters the institution acquires the comprehensive skills and knowledge needed for higher levels of learning and/or the workplace.
- Develop and implement student learning outcomes within each program of study to insure that each learner acquires the necessary skills and knowledge needed to demonstrate a comprehensive understanding of an academic discipline.
- Develop and implement student learning outcomes within each course to insure that each learner who enters the institution will acquire fundamental skills and knowledge in a specific subject area.

At the institutional level a system has been adopted to collect student learning outcome assessment data, results, and use of results by requiring all full-time faculty to include an assessment grid in their annual reports for at least one of the courses they teach.

At the institutional level the College has also adopted the nationally normed Community College Survey of Student Engagement (CCSSE). This survey is administered every other year and is supplemented by an internal Student Opinion Survey (which includes similar questions) that is administered in the alternating year. In this way the College collects indirect measures of student learning outcomes annually. The CCSSE also provides a comparison of results to similar institutions as well as all institutions administering the survey nationally. This report includes a comparison of Cecil scores with national scores for each general education competency. Cecil was recognized by the 2004 Community College Survey of Student Engagement as a high performing institution, placing in the 90th percentile nationally in three of the five benchmarks of effective educational practices.

Beginning in fall 2007, Cecil Community College will further enhance data collection related to general education competencies by implementing the Community College Learning Assessment survey, which will provide direct measures of student learning outcomes in general education competency areas.

At the course level, all course syllabi include student learning outcomes, outcome indicators, types of assessment used, and sample assessment activities.

In accordance with the Maryland Higher Education's guidelines for the content of progress reports on student learning outcomes assessment, this report addresses the four competencies related to general education and the essential skills that are identified in Standard 12 of Middle

States' accreditation process: written and oral communication, scientific and quantitative reasoning, critical analysis and reasoning, and technological competency. In addition, Cecil Community College includes information literacy as a fifth competency that is essential for all graduates.

Definition of General Education Competencies

1. Written and Oral Communication

Cecil Community College defines college-level writing competency according to the *Standards for a "C" Paper* as approved on March 3, 1998, by the Maryland Statewide English Composition Committee and on April 21, 1998 by the Inter-segmental Chief Academic Officers of Maryland's two- and four-year institutions of higher education.

College-level oral communication is defined as improved oral expression, listening, critical thinking, and message analysis, and enhanced appreciation and understanding of various forms of expression/communication.

2. Scientific and Quantitative Reasoning

Cecil Community College defines college-level competency in scientific reasoning as students' ability to articulate the elements of the scientific method, and the application of such elements to the analysis and the practice of science. Students should be able to collect, analyze, interpret, evaluate, and present data.

College-level quantitative reasoning is defined by the following approved statewide attributes:

- a. interpret mathematical models given verbally, or by formulas, graphs, tables, or schematics, and draw inferences from them,
- b. represent mathematical concepts verbally, and where appropriate, symbolically, visually, and numerically,
- c. use arithmetic, algebraic, geometric, technological, or statistical methods to solve problems,
- d. use mathematical reasoning with appropriate technology to solve problems, test conjectures, judge the validity of arguments, formulate valid arguments, and communicate the reasoning and the results,
- e. estimate and check answers to mathematical problems in order to determine reasonableness
- f. recognize and use connections within mathematics and between mathematics and other disciplines

3. Critical Analysis and Reasoning

Cecil Community College defines college-level proficiency in critical analysis and reasoning to include, but not limited to, the following: application, analysis, synthesis, evaluation, problem solving, and decision making, as well as creative thinking, meta-cognition, and productive habits of the mind.

4. Technological Competency

Cecil Community College defines college-level technological competency as the students' ability to engage in technology collaboration; use and create structured digital documents; perform technology-enhanced presentations; use technology tools for research and evaluation; use databases to manage information; use technology tools for analyzing qualitative and quantitative data; use graphical and multimedia representational technologies; demonstrate familiarity with major legal, ethical, privacy and security issues; demonstrate a working knowledge of hardware and software applications; and create an HTML web page.

5. Information Literacy

Cecil Community College defines college-level information literacy as the students' ability to recognize the need for information; identify what information is needed; find that information; evaluate information critically for relevance and credibility; use information to solve problems or answer questions; and use information legally and ethically.

Measures of Assessment

For each of the general education competencies, Cecil Community College uses direct and indirect measures of assessment of student learning outcomes.

Direct Measures of Assessment:

- Course embedded assessments including written work scored using the C-Standards rubric
- Oral presentations scored using a rubric
- Score gains between entry and exit tests
- Ratings of student skills in the context of class activities, projects and discussions
- Portfolios of student work

Indirect Measures of Assessment:

- Student evaluations and ratings of the knowledge and skills they have gained in general education courses
- Grades on assignments not accompanied by a rubric
- Student satisfaction with their learning in general education competencies collected through Student Opinion/Satisfaction surveys
- Results of the nationally-normed Community College Survey of Student Engagement (CSSE) survey

Use of Assessment Results

Faculty members report that changes in teaching style, content, and approach are continuously made based on assessments of student learning outcomes, and several examples are included in

this report. Data from the Community College Survey of Student Engagement (CSSE) survey are also included for each general education competency. The following examples provide a brief overview of the use of assessment results at Cecil Community College.

Faculty members across the institution note that many students struggle with basic rules of grammar and mechanics in writing assignments. As a result, faculty members in all disciplines are encouraged to refer students who have problems in their writing with grammar and mechanics to the Reading and Writing Center for tutoring. A full-time faculty position, Director of the Reading and Writing Center, was added in fall 2006 to increase student support. This position has added significant support for students' learning, and most critically, our developmental and ESL students. Also, to increase student use of the Reading and Writing Center, physical changes were made to the space to make it more accessible and friendly.

The English/Reading Department conducted an assessment of writing progress in EGL101 in the spring of 2004 and used that information to reconsider course and assignment content. The department also conducted an assessment of General Studies Writing Across the Curriculum (cross discipline writing samples) in the spring of 2005 and has used that data in the reconsideration and realignment of writing assignments. This assessment revealed that in the majority of cases, student writing met or exceeded the state's C-Standards as students approached graduation from the General Studies Program.

To address the issue of suspected plagiarism in student writing assignments classroom instruction about plagiarism has been intensified, the College has implemented the use of turnitin.com, and has established a campus-wide ad hoc committee on Academic Integrity.

Most courses across academic disciplines include an oral presentation requirement so that students can become more comfortable with oral presentations and increase their proficiency. Many faculty members have adopted a rubric scoring method developed by the Speech Department which is used by both instructors and peers to score oral presentations. The goal in using the rubric is to offer uniform guided critiquing of public address. Results show that scores do not vary much in degree between the student's peer evaluations and the instructor's scores.

Several departments have implemented the use of pre- and post-tests to measure student gains over the semester. Faculty members report that they like using the pre- and post-test method of assessment because it is quick to administer, quick to grade, and the results are quantifiable. However, some faculty members have noted that since students know that the post-test is not likely to affect their final grade in the course, they may not take the test seriously or pay close attention to the quality of their answers.

Some departments have implemented clicker (interactive response) technology to assess student understanding of key concepts. This technology allows faculty members to take a census of the entire class as to their understanding of particular concepts. The aggregate results are then displayed to the class and the lecture is adjusted appropriately according to the results.

The Nursing Department implemented the use of the California Critical Thinking Skills Test (CCTST) beginning with the cohort entering in fall 2002. The test is administered on a pre-test

and post-test basis, administered to each incoming cohort and again prior to graduation two years later. Students' performance results are used in annual discussions regarding evaluation of curriculum and teaching methods, and the department has implemented some specific instructional methods to promote analytical thinking such as concept maps, case studies and nursing care plans.

This spring for the first time, the Nursing Program incorporated the use of MEDS Publishing software, an online curriculum support system that augments current teaching tools. The department hopes the software will improve the academic and technical skill achievement of students and increase student retention, increase the number of students who graduate, and increase the number of students who pass the NCLEX-RN and receive professional licensure as a registered nurse. The NCLEX-RN first-time test takers passing rate for FY 2006 was 89.7 percent.

Students pursuing a degree program at Cecil Community College must fulfill a computer literacy requirement for graduation, and this is usually accomplished by completing the course CIS 101 Introduction to Computer Concepts. The College recently implemented a process which provides an option for students to "test out" of one or all of the concepts presented in CIS 101. Faculty members note that while many students believe they have the skills to test out of particular content areas, they do not achieve a sufficient score to do so. Results for students who opted to complete the assessment test this year show that more students successfully test out of Word (20%) and PowerPoint (21%) than Excel (10%) and Access (9%). The Business and Information Technology Department plans to continue to give students the option of testing out of the various components of the CIS 101 course. Students have responded favorably to this option.

MHEC Staff Review of 2007 Student Learning Outcomes Assessment Report

Cecil Community College has an Institutional Assessment Plan in place; all full-time faculty must submit an annual "assessment grid" for one of their courses. This reporting measure requires instructors to articulate course learning outcomes, as well as what measures are used to assess the outcome, the results of the assessment, and how the results will be used.

Cecil Community College has defined all four general education competency areas. The report provides examples of direct and indirect measures of assessment for each competency. To note just two examples: pre/post-vocabulary tests (written and oral communication) and course-embedded written assessments scored with a rubric (all competencies).

One such measure operates in real time: the math department employs clicker technology (interactive response) during statistics courses. As noted in the report, faculty members can "take a census of the entire class as to their understanding of particular concepts." Instructors then adjust their lecture accordingly.

Results from the 2006 Community College Survey of Student Engagement (CCSSE) are also cited to provide an indirect measure of what Cecil students are learning.

Chesapeake College

Institution's Executive Summary of 2007 Learning Outcomes Assessment Report

Since the 2004 SLOR report, Chesapeake College has made institutional assessment central to its operations in Academic Services and in all college operations. In the last two years, Chesapeake College has begun a systematic assessment of General Education outcomes. In 2005-2006, we provided in-service training for faculty on integrating and assessing the first two of the college's twelve general education competencies into General Education courses. Academic Year 2006-2007 became Year One of the assessment process and began with the measurement of those two competencies: *Critical Thinking* and the *Recognition and Appreciation of Cultural Diversity*. AY 2007-2008 will address the competencies of *Reading Comprehension* and *Understanding the Scientific Method*.

In planning for Fiscal Year 2007, Chesapeake College used its assessment planning and reporting to determine its budget priorities. The College Operations Plan, Enrollment Management Plan, Student Learning Outcomes Plan, and Technology Plan were used to determine allocations of additional funds to the budget. The 2008 FY budget was determined in the same way.

Also in 2007-2008, an Academic Planning and Assessment Council was formed to oversee the five areas of the Student Learning Outcomes Plan: Academic Programs and Curricula, Continuing Education, Developmental Education, Distance Education, and General Education.

While many of Chesapeake College's assessment efforts are focused at the course level (see sample course level assessment in Appendix E,) there have been significant changes in other areas as well.

The college's Academic Programs and Curriculum Committee spent the 2006-2007 academic year revising the Program Review process to assure systematic follow-up for program improvement. Revisions included requiring ties to institutional, as well as programmatic outcomes; requiring information on program viability; assessment of General Education outcomes in all programs, and requiring assessment plans in all programs. As a result of these new processes, several programs have undergone significant revision.

The Continuing Education Department has begun assessing student outcomes in licensure courses such as CAN and CPR. The Continuing Education Department has also implemented an electronic tracking system for end of course evaluations and a web-based customer satisfaction survey. Results are reported to the Academic Planning and Assessment Council and, as appropriate, to the Academic Programs and Curriculum Committee.

As a result of examining the scores on the MAPP and academic progress and persistence data, the college's Developmental Education Committee, in cooperation with the English department faculty, revised the mid-level developmental reading and writing courses, emphasizing an integrated approach to teaching those skills, and revising cut scores to promote more flexibility for student placement in developmental courses. The committee is reviewing additional

strategies to increase student persistence and completion of developmental coursework. Other actions of this committee include: implementation of an early alert system, expansion of linked courses, a combination of multiple developmental courses to increase student access, provision of professional development sessions on helping instructors deal with developmental students in their classrooms, development of a high-school testing pilot, and development of a plan to support first-time minority students.

In order to increase the college's ability to monitor the effectiveness of its on-line classes, the Distance Learning Committee committed to the implementation of the *Quality Matters* rubric. A small group of faculty has been trained to evaluate courses beginning in Fall 2007. The Distance Learning Committee has also begun a process for deriving teaching guidelines for the online environment. The college's evaluation and assessment processes now include online courses. We are also measuring the differences in success rates of face-to-face and online courses to improve student outcomes in both environments.

The General Education Committee has begun a systematic review of the college's General Education competencies with the intention of making them clearer and the outcomes more measurable. As mentioned above, the 2006-2007 academic year was the first year for the assessment of the competencies.

A variety of program-specific assessments are also used at Chesapeake College, particularly in the Allied Health programs. In the Nursing program a diagnostic, standardized exam, National League of Nursing (NCLEX readiness exams) is administered in the fall semester of year two of the program. Results of this exam are used by the faculty to develop individual "prescriptions" for the students to use in preparation to sit for the NCLEX, state licensing exam upon graduating from the program. Additionally, the program uses HESI, another nationally normed exam for additional prep to take the NCLEX exam.

Chesapeake College is committed to the assessment process as a means to improving student learning. While we recognize that there remains much work to be done, we are confident that we have made good progress in this effort.

MHEC Staff Review of 2007 Student Learning Outcomes Assessment Report

The 2006-2007 academic year was "Year One" of **Chesapeake College's** systematic assessment process; focus fell on critical thinking and recognition and appreciation of cultural diversity, two of the school's 12 general education competencies. Two additional competencies will be addressed in AY 2007-2008.

The four general education competencies are included and defined in CC's 12 general education competencies.

Results from the 2006 and 2007 Measure of Academic Performance and Proficiency exam (MAPP) are provided. Based on these scores, the college hired a "case-worker for

developmental education,” as well as moved to establish a “Writing across the Curriculum” committee.

Assessment of scientific and quantitative reasoning is planned for 2007-2008; work is in progress on how best to assess critical analysis and reasoning beyond the use of the MAPP and the CCSSE.

According to the report, technology competency will be assessed in 2009.

Concerning course-level assessment at CC, a course outcomes and assessment plan for GEO 142 (cultural geography) is included in the report. Assessment analysis has resulted in the course being changed to emphasize “application activities ... to motivate students to the higher level of effort that thinking/application of concepts requires.”

The Community College of Baltimore County

Institution's Executive Summary of 2007 Learning Outcomes Assessment Report

The Community College of Baltimore County (CCBC) celebrates learning and is committed to ensuring that our students grow as learners, develop a passion for life-long learning and use what they have learned to benefit our community. Therefore learning outcomes assessment has been a major emphasis of the college's strategic plan.

This year's Student Learning Outcomes Assessment Report to MHEC focuses on how CCBC defines General Education and the criteria that it uses to identify courses that are designated as fulfilling its General Education Distribution Requirements. The report describes how CCBC has attempted to measure learning outcomes in General Education using the Academic Profile Standardized Test; how it categorizes and measures various levels of learning outcomes in general education courses using its GREAT project; how it measures student engagement, progress toward student goals, and student satisfaction with support services; and how it uses these metrics to improve services to students and to improve student learning outcomes. This summary report does not attempt to describe CCBC's Learning Outcome Assessment Projects (LOAs) that are ambitious course level learning outcome projects that focus on high impact courses (both general education and career courses); nor does it focus on its Program Review Assessment Self-Studies or on its program level accreditation and licensure programs that are also involved with monitoring learning outcomes.

DEFINITIONS

CCBC defines its General Education Program as follows:

The General Education Program at the Community College of Baltimore County is a coherent program of study that provides the knowledge, skills, attitudes and perspectives that enable students to achieve their academic, career, and life goals. As a learning-centered institution, CCBC offers a General Education Program designed to provide students with the basic skills, core content, and distribution content essential to pursue study in academic disciplines. In addition, CCBC's General Education Program will assist students to grow and respond to new work-life situations, to manage their own learning and to encourage learning in others, and to expand their understanding of and ability to function within the diversity of the contemporary world.

For a course to be approved as a General Education course, it must meet all of the following criteria:

- I. Introduce students to the fundamental principles, concepts, vocabulary, and methods essential for the acquisition of knowledge and skills basic to the field of study.
- II. Prepare students to communicate effectively using written and oral, or signed, communication skills. (**Competency=Written and oral communication skills**)

- III. Provide a variety of learning experiences that encourage students, independently and in collaboration with others, to use those fundamental principles and methods to acquire, analyze, and use information for purposes of inquiry, critical thinking, problem-solving, and creative expression in a diverse environment.
(**Competency=Critical analysis and reasoning**)
- IV. Prepare students to adapt to change, including the increasing integration of information technology in all fields of knowledge and expression.
(**Competencies=Information Literacy and Technical Competency**)
- V. Provide students with the knowledge and skills to understand themselves and others from various cultural, social, aesthetic, political, and environmental perspectives.
- VI. Provide the experiences that will allow students to become independent learners, the skills to analyze their strengths and weaknesses as learners and the knowledge to accomplish the tasks involved in learning. (**Competencies=Scientific and quantitative reasoning and Critical analysis and reasoning**)
- VII. Use appropriate assessment tool(s) to demonstrate the degree to which students have met the objectives of the course.

In addition to these general criteria that all General Education Program courses at CCBC must meet, there are specific distribution requirements in English Composition, Speech Communication, Biological and Physical Sciences, and Mathematics that all students must complete. Students enrolled in transfer programs must also complete three credits in Information Literacy/Technology. The definitions for these categories and further criteria that a course must meet to be approved as a General Education course are included in the body of the report.

MEASUREMENT and RESULTS

In order to document student learning in the CCBC General Education program and also to gather evidence related to the overall effectiveness of this program, the General Education Review Board at CCBC has designed a comprehensive assessment plan that includes a variety of both internal and external measures that includes the following:

The Academic Profile is a standardized assessment instrument created by the College Board and the Educational Testing Service. This instrument assessed college level reading; writing; critical thinking; and use of mathematical data in the humanities, social sciences, and natural sciences. This assessment was conducted for the first time during the fall 2001 semester (data previously submitted) and was conducted again in fall 2004 (see data tables below.) It focused on the academic *skills developed* through general education courses rather than on the *knowledge acquired* about the subject taught in these courses. Its purpose is different from the course assessment efforts that are being promoted through the College's learning outcomes assessment efforts. Unlike course-specific assessments or the GeneRal Education Assessment Teams (GREATs) project, *Academic Profile* results provided the college with an opportunity to evaluate academic skills that were acquired across disciplines and to compare those outcomes with institutions with similar missions. The Academic Profile is no longer in print, so a new standardized instrument is being explored. One test that is being seriously considered is the Measure

of Academic Proficiency and Progress (MAPP). The new test is scheduled to be administered for the first time in fall 2008.

Detailed data are provided in the full report. Through the use of these measures, CCBC has confirmed that our students perform at the same level as other two-year associate degree students using the Academic Profile test. The Academic Profile results also informed the College that our students are performing at a level similar to that of the national two-year associate degree sample in the specific areas of critical thinking, reading, writing and mathematics.

GREAT Project/Common Graded Assignments are assessments designed by teams of faculty representing each General Education discipline. The discipline teams have become known as **GREATs**, which stands for **GeneRal Education Assessment Teams**. The GREATs have developed a faculty- approved list of assignments and scoring rubrics for each discipline area, which are then incorporated into all sections of designated courses each semester. At the end of the fall and spring semesters, random samples of these assignments are collected and scored by trained faculty. The feedback from these assignments provides valuable information about the degree to which students are achieving the General Education Program Outcomes and provides direction for curricular changes.

The skills measured with the Common Graded Assignments were as follows: Content Knowledge; Written, Oral, and/or Signed Communication; Critical Thinking; Technology as a Learning Tool; Cultural Appreciation; and Independent Learning. Each rubric used a 6-point scale, with 6 being the highest score possible and 1 being the lowest score possible. As per the 1-6 rubric scale, a score of “3” equates to the presence of the specific general education criteria with something lacking and a score of “4” indicates evidence that the criteria is present without any extra supporting material. Scores in the “content knowledge” category were ranked highest in each term and ranged from 3.0 to 4.4. Ranking of attainment in the area of cultural appreciation were low for each term and were deemed Not Applicable in many of the science courses that were sampled in Fall 2005. Faculty in the Humanities and English Courses that were selected to participate in the latest rounds of GREAT projects were able to include more cultural appreciation projects in their assignments, but this category remained the lowest ranked.

The SIR II course evaluation instrument from the Educational Testing Service (ETS) is administered to students at the end of the semester to obtain feedback on items such as instructor effectiveness, course delivery preferences, and relevance of assignments to course requirements.

The College’s SIR II course evaluations also provide national comparisons. In each case, CCBC has met and/or exceeded national levels in course organization, communication, faculty/student interaction, assignments, exams and grading, course outcomes, and student effort and involvement.

The Community College Survey of Student Engagement (CCSSE) was administered for the past two years to assess student engagement on a variety of factors. This survey enables faculty and staff to examine student perceptions of the following behaviors at CCBC: active and collaborative learning, student effort, academic challenge, student-faculty interaction and the support they receive from the college. The CCSSE is particularly useful in assessing students because it provides the opportunity to compare CCBC scores with a national norm, other Maryland colleges and colleges similar in size to CCBC.

CCBC has improved on the student-faculty interaction benchmark due to an increase in the use of email by faculty to contact students. Based on these levels of engagement CCBC has embarked on a college wide initiative to address issues of academic challenge and providing services that support students.

Indirect Measures - Indirect measures of the General Education program include items from the Graduate Follow-up Survey, CCBC's annual survey of current students, survey of students who do not return to CCBC, the Employer Feedback Survey, and a variety of transfer measures obtained from the public four-year institutions where many CCBC students transfer. These tools provide further feedback regarding the success of the General Education program.

INCORPORATING RESULTS FOR IMPROVEMENT

Using Assessment Data to Enhance Teaching and Learning

Learning Outcomes Assessment has been a major emphasis in the college's Strategic Plan since 1999 and these assessments are tightly woven into the setting of annual objectives and the allocation of budget and human resources. CCBC has been nationally recognized and awarded for its Learning Outcomes Assessment Program and particularly for this ability to use these results in the improvement of its courses and programs. CCBC was one of four colleges, and the only community college, to receive the Council for Higher Education Accreditation's 2006 Award for Institutional Progress in Student Learning Outcomes. Many other colleges across the country have "borrowed" the CCBC assessment model for assessing courses.

All assessment projects at CCBC follow the same five-stage model:

- Stage 1: Designing and Proposing a Learning Outcomes Assessment Project
- Stage 2: Implementing the Design and Collecting and Analyzing the Data
- Stage 3: Redesigning the Course to Improve Student Learning
- Stage 4: Implementing Course Revisions and Reassessing Student Learning
- Stage 5: Final Analysis and Reporting Results

There is particular emphasis on Stage 3, implementing change to enhance student learning. The initial stages are designed so that they support this redesign and the implementation is timed so that resources can be made available at this critical point. The entire assessment process requires a continuous reflection on the progress the college is making towards its goal of student learning.

To guide this process the college has a Learning Outcomes Assessment Advisory Board (LOAAB) comprised of faculty from all disciplines at CCBC and includes representatives from Student Advising and Student Services which are beginning their own process and learning outcome assessment projects. This LOAAB group, along with assistance from the Planning, Research, and Evaluation Office, reviews the results from all General Education Assessments and works with the college's Outcomes Associate and GREAT Coordinator to help faculty and student service staff determine what changes need to occur to further enhance student learning. At this level, results from Learning Outcomes Assessment Projects, the results from a GREAT Project, survey results, and the results from standardized tests are brought together into a broader picture of how programs and courses need to be changed. In addition to curriculum changes that have resulted from particular LOA projects the results from this review process contribute to development of professional development workshops that are offered to assist faculty with areas of student performance that need improvement such as inclusion of learning into varying cultural contexts and learning styles.

Assessment projects that go beyond particular courses and programs also have important impacts on student learning and how the college operates. Student feedback in our course evaluation systems (see description of College results on our SIRII Course Evaluation in previous section) are one part of our performance evaluation of faculty and can play a prominent role in merit increases and in promotion to higher faculty ranks. These course evaluations are also provided to each faculty member and to their department chair for use in identifying exemplary teaching and opportunities for improvement.

Other assessment projects that go beyond particular courses to have impacts on CCBC students and learning have been the Community College Study of Student Engagement (CCSSE), the Community College Study of Faculty Engagement (CCFSE), and our own surveys of students, graduates and non-returning students, that help us evaluate the experiences of CCBC students. These have resulted in extensive discussions among faculty and those who provide direct services to students, and helped CCBC identify issues of student engagement where additional resources and better processes can better help students achieved their educational goals.

MHEC Staff Review of 2007 Student Learning Outcomes Assessment Report

The **Community College of Baltimore County** has a detailed definition for its General Education Program, as well as definitions for all competencies. According to its report, in order for a course to be approved as a General Education course, it must meet specific criteria. These criteria include the four general education competencies as articulated by MSCHE and MHEC.

At the course level, direct assessments are designed by teams of faculty representing each General Education discipline. They have developed assignments and scoring rubrics for each discipline area, which are then incorporated into all sections of designated courses each semester. At the end of the fall and spring semesters, a random sample of these assignments is collected and scored by trained faculty. The feedback from these assignments provides valuable information about the degree to which students are achieving each of the General Education

Program Outcomes and provides direction for curricular changes. Every General Education course is assessed at least once every three years. Data is shared with faculty and administrators on a regular basis. This process has been institutionalized and is working well to assess the General Education Program outcomes at the course level.

At the institutional level, the college administers the Academic Profile, the Educational Testing Services SIR II course evaluation survey, and the Community College Survey of Student Engagement (CCSSE).

While the report states that assessment results have led to curriculum changes and professional development workshops, no specific examples were given.

College of Southern Maryland

Institution's Executive Summary of 2007 Learning Outcomes Assessment Report

The CSM Student Learning Outcomes Assessment Report is a progress report prepared for the Maryland Higher Education Commission examining four general education competencies: written and oral communication; scientific and quantitative reasoning; critical reasoning and analysis; and technological competency.

The report is organized primarily on the basis of assessments of the competencies under each of the academic departments of the institution. It is important to note however, that while some of the assessment activities for course and program outcomes are reported under the academic department in this document, the assessment may have been conducted in conjunction with one of the assessment committees of the institution (i.e. Institutional Outcomes, Program Outcomes, Course Outcomes, and/or General Education Committees). The membership for these committees comprises mainly faculty, but some of the committees include staff as well.

College Definition of General Education

At the College of Southern Maryland, the first sentence in the mission statement, "The College of Southern Maryland is an open-admissions, regional community college preparing students and community to meet the challenges of individual, social and global changes", is at the core of all student learning expectations (CSM Catalog 2006-2008, p. 16). General education is one of eight institutional effectiveness goals that support the mission.

The college defines and describes general education as follows:

The [College of Southern Maryland] defines general education in the following ways: 1) by the required array of specified general education courses in all degree programs, and 2) by the skills and categories of knowledge, specified by the faculty, which those courses incorporate.

Students who enroll in a degree program at the college learn quickly that a portion of the required courses is referred to as general education. These courses will range from 20 to 34 credits, depending on the program selected. Whatever the number, they will be selected from the same list of courses, which are grouped under the following headings: Arts; Humanities; English Composition; Social and Behavioral Sciences; Mathematics; Biological and Physical Sciences; Interdisciplinary and Emerging Issues.

This course distribution is intended to ensure that students have mastered fundamental skills and have demonstrated a familiarity with a core knowledge considered basic to all college-level work. (CSM Catalog 2006-2008, p. 55)

CSM offers nearly 150 general education courses that span every academic discipline and program (CSM Catalog 2006-2008, pp. 56-58).

The college's "Faculty Statement on General Education", originally adopted in 1987, lists the competencies that all graduates of the college should have been exposed to during their course of study. The original statement included 92 competencies. In 1995, the statement was revised: the values section was removed and included in the CSM Catalog as the "Faculty Statement on Values in the College Community" (CSM Catalog 2006-2008, p. 17). The remaining 72 competencies form the current taxonomy, called "Skills and Categories of Knowledge" (CSM Catalog 2006-2008, pp. 59-60), that the faculty believe will be gained from the general education courses taken by all CSM degree holders.

The competencies are clustered into ten domains or areas of academic skill (reading, writing, mathematics, computer, observation, learning, speaking, listening, interpersonal communication, and reasoning). Broad objectives within four categories of knowledge (political/historical, cultural/social, economic, and natural/technological) were revised and updated by the Faculty Senate in fall 1995.

Direct and Indirect Evidence of Student Learning

Much of the direct evidence that student learning assessment information is used to improve teaching and learning is found in the work of the college's program and course outcomes committees and the work of the academic departments of the college. Assessment measures and methods are determined, assessment results are reported, and then actions are recommended based on results.

In each course, the faculty document the general education competencies which they believe are taught with emphasis on course accountability forms. Additionally, a master syllabus for all general education courses has been developed that specify the particular skills and categories of knowledge from the list of 72 competencies that students can expect to learn.

The skills and categories of knowledge enumerated in the CSM catalog are prevalent in the courses. As students take the courses, they see the particular skills and categories of knowledge to be learned described on the course syllabi. Students are graded on the extent to which they have mastered these.

Indirect evidence of the assessment of general education competencies builds off of a long tradition of assessment of the college's general education program. Acting on behalf of the General Education Committee, the surveys are administered through the Outcomes Assessment and Research Department to measure the success of the general education program. Results enable faculty to determine if there are any deficiencies in any course or program that must be addressed. Several departments (e.g., Biology and Physical Sciences; Business, Economics and Legal Studies; and Languages and Literature) use the results of these surveys in order to make adjustments to their general education courses or simply to verify that the general education outcomes are being met.

Each semester 10 to 15 introductory-level general education courses are selected for a course-specific survey. Once the courses are identified, a stratified random sampling technique is used to select sections. Students in selected course sections are asked whether they thought that they had been exposed to the values, skills, and knowledge that faculty members believed they were

teaching in their courses. Currently, 74 different general education courses have been surveyed, some several times, for a total of 276 courses surveyed.

Each year, graduating students are asked to report to what extent they were expected to have to or use the values, beliefs, skills and categories of knowledge that their CSM educational experiences provided. Although the college has been surveying students for a number of years, data reporting has been at times sporadic. There are several years that the surveys have not been coded for students' curriculum data, as well as at least a year when the surveys were not administered.

Competency: Written and Oral Communication

The College of Southern Maryland defines this competency, written and oral communication, as certain skills and knowledge contained in the general education domains of writing, speaking, listening, interpersonal communication, and computer (2006-2008 CSM catalog, pp. 59-60).

Nearly all of the college's academic departments report that they utilize both direct and indirect methods to assess this competency. Examples of measures used to assess this competency include: field reports in botany courses, a capstone writing exercise in paralegal studies, and writing exercises in composition and rhetoric classes that are graded using a standardized grading rubric. The institution also assesses this competency on an institution-wide basis using two measures, the Academic Profile test and the survey of graduating students as described in the previous section of this summary. Those measures, which are part of the institution's key performance indicators, are reviewed annually by the institution's executive council. Results for these measures are also provided by program, so they are a useful tool for program level assessment as well.

Academic departments use the measures and results to improve student learning in this competency. For example, as a result of assessment, the Business, Economics and Legal Studies Department added English and/or reading prerequisites to its gateway accounting, economics and paralegal courses to improve success and learning in those courses. The department has documented improvement in the performance of students in these courses since those prerequisites were added.

Competency: Scientific and Quantitative Reasoning

The College of Southern Maryland defines this competency, scientific and quantitative reasoning, as certain skills and knowledge contained in the general education domains of mathematics, observation, learning and natural/technological (2006-2008 CSM catalog, pp. 59-60).

Most of the college's academic departments report that they utilize both direct and indirect methods to assess this competency. Examples of measures used to assess this competency include: the Assessment Technologies, Inc. (ATI) exit exam for nursing students, an economic problem set in management development courses and assignments in many science courses whose elements include mathematical reasoning, modeling, data collection/analysis and construction/interpretation of graphs. As with the written and oral competency, the Academic

Profile test and surveys of graduates are methods that are used to assess this competency at the institutional and program levels.

Academic departments use the measures and results to improve student learning in this competency. For example, a general education course survey for BIO 1040L (Introduction to Human Anatomy and Physiology Lab) in fall 2005 indicated that students were not being sufficiently exposed to the skill of interpreting graphs, tables and charts. Further analysis indicated that the course content for most of the lab sections stressed anatomy, not physiology, so many students were not exposed to the skills sets of interpreting graphs, tables and charts. Because of this assessment and analysis, the course content for BIO 1040L was changed to include an assignment, specifically a physiological experiment, to improve student learning with these skills.

Competency: Critical Reasoning and Analysis

The College of Southern Maryland defines this competency, critical reasoning and analysis, as certain skills and knowledge contained in the general education domains of reading, observation, learning, reasoning, natural/technological, and computer (2006-2008 CSM catalog, pp. 59-60).

Nearly all of the college's academic departments report that they utilize both direct and indirect methods to assess this competency. Examples of measures used to assess this competency include: lab assignments in zoology, biology and chemistry which are based almost entirely on an experimental, critical analysis format; and a budgeting project in cost accounting which deals with the manufacturing of a product and asks students to manage/revise a budget, revise projections and remain profitable if a disaster were to strike (this is a group project and each group has a different disaster scenario). All students in composition and rhetoric classes receive an "academic integrity letter" and an "academic integrity checklist" on the first day of class. These documents are part of a strategy in the Languages and Literature Department to not only reduce the number of plagiarized papers but also to create a sense of responsibility and understanding of "original voice" in academic research and writing. Other disciplines have adapted these documents to suit their needs.

Academic departments use the measures and results to improve student learning in this competency. For example, as a result of assessment, the Business, Economics and Legal Studies Department developed and added ratio analysis exercises to three separate accounting courses to help students develop the skills needed to complete their capstone math exercise. At present, the results of using the Academic Integrity Letter and Checklist have been purely anecdotal. Now in use for a full two years, the documents will move past the pilot stage and become permanent documents for use in the department. Signed copies will become part of the student files, so data can be collected based on ability to produce a C-level or better research paper and/or completion of the ENG 1010 course.

Competency: Technological

The College of Southern Maryland defines this competency, technological, as certain skills and knowledge contained in the general education domains of reading, observation, learning, reasoning, natural/technological, and computer (2006-2008 CSM catalog, pp. 59-60).

Many of the college's academic departments report that they utilize both direct and indirect methods to assess this competency. Examples of measures used to assess this competency include: the use of calculators to perform mathematical manipulation in an introduction to astronomy course; the use of computer interface modules in chemistry and biology labs for the collection, graphing and analysis of data collected in lab experiments; the use of graphing calculators in contemporary algebra classes; and paralegal software exercises for paralegal courses.

Academic departments use the measures and results to improve student learning in this competency. For example, as a result of assessment, the Business, Economics and Legal Studies Department enhanced a microcomputer software applications for business course to include integrated use of desktop software. The course was also standardized and is now delivered in lecture, web and we-hybrid instructional methods. This department also enhanced their paralegal studies and criminal justice programs to include web and web-hybrid courses.

Future of Assessment at CSM

The year 2006 was an historic one for the college. The college bade farewell to its third president and welcomed its fourth. The college began a new initiative, the "Quality Improvement Process", of which a large part involves assessment for all divisions and departments of the institution.

The Quality Improvement Process, or QIP, contains three main elements: strategic planning, assessment and process improvement. The purpose of the Quality Improvement Process is to provide a framework within which the college community and its stakeholders can exercise their shared responsibility for shaping CSM's future. With this new initiative, the college can expect to see the development and/or implementation of additional methods for assessing student learning and moreover, the building of a culture of assessment at the college.

In 2006, the college purchased a web-based software application to help facilitate its ability to measure, track and report assessment activity. It provides the college faculty and staff a central location and uniform approach to storing and reporting this type of information. Assessment information regarding institutional effectiveness has been moved into this new system. It is expected that student learning outcomes assessment information will also be moved into this new system.

Summary

The assessment of student learning outcomes, particularly those related to general education, continues to evolve at the College of Southern Maryland. The college has, for many years, assessed general education, mainly through the use of the indirect measures of surveys of graduates and students in general education courses. Direct measures have been developed and are now in place across the spectrum of the academic departments of the college. Together, these measures assess student learning outcomes, and results have been used to substantively change curricula and courses. These changes are continuing to improve the student learning taking place at the institution. New initiatives, such as the Quality Improvement Process and the centralization of assessment information into an easily accessible, web-based software program, will also help to build the culture of assessment needed to sustain on-going assessment efforts.

MHEC Staff Review of 2007 Student Learning Outcomes Assessment Report

The **College of Southern Maryland** has “eight institutional effective goals,” including general education. The “Faculty Statement on Values in the College Community” delineates competencies a CSM graduate will gain, including the four general education competencies.

The competencies are defined in relation to various domains and academic skills; these definitions are provided for each competency. Numerous examples of both direct and indirect measures, covering the four competencies, are provided. In addition, the report addresses how different academic departments approach the same competency. For example, a detailed rubric used in composition courses (“Grading Standards for College Papers”) helps English faculty assess written communication, while the history faculty assign a capstone writing exercise.

Results of assessments are used to make improvements in teaching and learning. For instance, analysis of assessment in the Business, Economic and Legal Studies Department (where a capstone financial analysis exercise is required) resulted in the development of ratio analysis exercises for accounting courses.

Frederick Community College

Institution's Executive Summary of 2007 Learning Outcomes Assessment Report

Student learning outcomes assessment at Frederick Community College is a comprehensive effort focused on measuring student academic achievement. As part of the College's mission statement which is defined in the *2007-2010 Strategic Plan*, FCC is committed to preparing students to meet the challenges of a diverse, global society through quality, accessible, innovative, lifelong learning. To achieve its mission, FCC is making learning its central focus, helping students be active partners in the learning process, and focusing on learning outcomes to assess student learning. It is through the analysis of student learning efforts that the College is able to continuously improve learning and teaching in a systematic and effective manner.

Assessment of student learning is a cycle of planning, implementing, assessing and using the results for continuous improvement. FCC faculty begin by establishing clear, measurable expected learning goals and outcomes where evidence of students' learning is systematically gathered, analyzed, and interpreted to determine how well a student's performance matches those outcomes; and using the information to understand and improve student learning throughout FCC.

Restructuring the Assessment Process

Prior to FCC's 2006 Middle States' reaccreditation visit, the college conducted its self-study process and thoroughly vetted its strengths and weaknesses in the area of student learning assessment. In doing this, the college came away with the following recommendations:

- Assure an appropriate balance of student learning assessment activities, so that assessment within individual courses or programs effectively complements one another.
- Ensure that all assessment plans have realistic timetables and sufficiently defined leadership and accountability.
- Increase support for student learning assessment through college-wide clear communication of the plan, process, and function to all responsible parties.

In addition to the college's self study process, the Outcomes Assessment Council (OAC) conducted a Day of Reflection in June 2005 to reevaluate the strengths, weakness, opportunities and threats of the current assessment process. The results of these evaluations resulted in the reorganization of the Outcomes Assessment Council in the spring of 2006 and a newly proposed *Course-Level Assessment Plan for Student Learning*.

The OAC was restructured with members consisting of the Provost, Dean of Arts and Sciences, Dean of Workforce Development, one faculty member from each of the seven academic departments, one member from Student Life, one member from Student Development, one member from the Developmental Education Committee, the Executive Director, Outcomes Assessment and the Assessment Coordinator. Representatives from the new OAC drafted and proposed to the OAC a comprehensive two-part plan for assessing student learning in General Education called, *Course-Level Assessment Plan for Student Learning*. In order for assessment

to be meaningful, manageable, flexible and informative, it was proposed that a more structured approach with definitive guidelines be introduced. It is the College's intention that the new three-year *Course-Level Assessment Plan for Student Learning* be the foundation for future assessment efforts by faculty.

This two-part Plan was approved by the OAC on March 7, 2006 with implementation slated to begin in the fall of 2006. The Plan makes use of what was already done at FCC and builds upon that with a cycle of formal assessment projects. The first part of this new Plan requires each academic department to undertake rigorous course-level assessment within a 3-year period and the second part of the Plan utilizes data from faculty's annual self-evaluation in which he or she reflects about what they have done over the previous year to improve teaching and learning in their course(s).

The emphasis of this new assessment Plan is on a three-year cycle of formal, rigorous assessment projects undertaken by each department using faculty team leaders (volunteers). These self-selected faculty team leaders shoulder the responsibility for their departments and oversee the three-year assessment project. They are responsible for designing, implementing, collecting and analyzing data, and submitting the final course-level assessment report.

To ensure that the assessment project is sufficiently rigorous and likely to yield meaningful, reliable, and valid data about teaching and learning, the department must submit an Assessment Project Plan (APP) to the OAC for approval. Once approval is given, the department may proceed to collect and analyze data, implement change, and reassess for effectiveness. The cycle would work like this:

Year 1 (fall 2006 – spring 2007): All seven academic departments submitted their Assessment Project Plan (AAP) for assessing student learning. All APPs were approved and faculty designed and planned seven assessment projects based on the four competencies mandated by MHEC and Standard 14 of Middle States' Characteristics of Excellence in Higher Education. In spring 2007, faculty conducted their pilot assessment projects and will finalize their assessment methodology based on the pilot findings.

Year 2 (fall 2007 – spring 2008): Faculty will collect and analyze data and recommend changes to teaching and learning within the course.

Year 3 (fall 2008 – spring 2009): Faculty will reassess to determine the effectiveness of the changes and submit a final analysis and report.

The cycle then begins again with a new team investigating a new area of learning in a different high-enrollment course. As mentioned above in year 2, each assessment project must address all

competencies of the MHEC and Middle States' requirements; however, some competencies may be more or less relevant than others. Emphasis or de-emphasis of any part is up to the faculty team and would be explained in the Assessment Project Plan.

Assessment Activities (Fall 2006 – Present)

Assessment Project Plans have been prepared, submitted and approved for the following course-level assessment projects:

English – English 101 (English) will assess students' ability to write a well-organized, grammatically correct essay that requires them to think critically about controversial material, consider opposing points-of-view, come to a judgment about the merit of each position, and explain their critical understanding of the material.

Mathematics – Math 111 (Pre-calculus) will assess students' ability to apply quantitative reasoning (i.e., graphically, numerically, symbolically, and verbally) and one aspect of critical thinking (i.e., recognizing and developing alternative perspectives and solutions to pre-calculus problems.)

Social Sciences – PS101 (General Psychology) will assess students ability to demonstrate college-level communication skills by interpreting written texts and demonstrate critical thinking skills through an understanding of the basic principles of human behavior and knowledge of the major paradigms of psychology.

Computing and Business Technology – CIS101 (Introduction to Computers and Information Processing) will assess students' ability to demonstrate college-level communications skills by completing a written report and in-class presentation on the impact of computers on the economic, political and cultural development of society; demonstrate critical thinking through their analysis, evaluation and interpretation of social and educational values; and, demonstrate computer literacy through the integration of data from one application into another.

Science – BI100 (Fundamental Concepts of Biology) will assess students' ability to apply scientific reasoning on a scientific topic in the public domain by identifying measurable and reproducible evidence; determining if the conclusions are supported by evidence; differentiating between observations and interpretations; demonstrating critical evaluation of the relevance, authority, credibility, and timeliness of the scientific information; and, communicating the findings.

Communication-Humanities-Art – CMSP103 (Fundamentals of Speech) will assess students' ability to prepare and deliver a persuasive speech demonstrating critical thinking skills by evaluating evidence, generating and evaluating alternative solutions to

problems, and using that information to make valid judgments in their persuasive speech.

Allied Health and Wellness – HE204 (Health Education) will assess students' knowledge of health and their ability to apply this knowledge to their own health behavior through an Action Plan. Students will evaluate facts presented by the health industry and use that information to synthesize, interpret, and analyze the researched information.

Assessment Activities (2004 - 2006)

FCC has always believed that general education is the foundation of the higher education curriculum providing a coherent intellectual experience for all students. This foundation is designed to introduce undergraduates to fundamental knowledge, skills and values which are essential to the study of academic disciplines and pursuit of lifelong learning. Prior to the implementation of the new *Course-Level Assessment Plan for Student Learning*, assessment activity at FCC focused on the assessment of General Education goals which embodied the core competencies outlined by Middle States.

Although the process of assessing student learning has changed, assessment results were obtained on the progress of student learning during the previous three years and that information will be used in this report.

In addition to direct assessment methods, this report includes indirect assessment results from FCC's 2006 participation in the Community College Survey of Student Engagement (CCSSE). The CCSSE identifies and assesses student engagement and educational practices that promote student learning. In the spring of 2006, 824 FCC students completed the survey from randomly selected classes. Several CCSSE items reflect General Education goals and core competencies and provide FCC with a picture of students' perception of the degree to which coursework emphasizes these competencies and the degree to which they feel they have developed in each area. This data also allows a comparison of FCC performance with a consortium of 16 Maryland Community Colleges and the 2006 CCSSE National cohort performance results.

Specifically, these relevant CCSSE items reflected students' ratings of how much their experience at FCC contributed to student development of writing clearly and effectively (i.e., written communication), speaking clearly and effectively (i.e., speaking communication), thinking critically and analytically (i.e., critical thinking), solving numerical problems (i.e., quantitative problem solving), using computing and information technology (i.e., technological competence), and acquiring a broad general education. Detailed results are included in this report.

Impact of Assessment on Student Learning

Over the last three years, faculty has focused on student learning outcomes assessment in their respective disciplines, developed assessment strategies, and collaborated with colleagues on the

results of the assessment process. The Middle State's Visiting Team highlighted in its March 2006 report: "*The Team commends the faculty for the enthusiasm with which they approach their assessment activities.*"

The assessment of the Middle States' core competencies took place in the majority of high-enrollment general education courses and the results have been translated into meaningful strategies for improving student learning. Commencing December 2005, assessment results for each of these competencies was communicated to the College via a bi-semester newsletter called, *Assessment in Action*. The College community now has the opportunity to see evidence of student learning and understand curriculum changes that are being made in response to the assessment data.

Additional details about the impact of assessment on learning are presented in the following competency progress reports which outline in more detail the specific assessment activities and outcomes for each Middle States' competency.

MHEC Staff Review of 2007 Student Learning Outcomes Assessment Report

After conducting its self-study for Middle States' reaccreditation in 2006, **Frederick Community College** acted on recommendations concerning assessment and reorganized its student learning outcomes assessment process. Frederick's Outcomes Assessment Council has proposed a new Course-Level Assessment Plan for Student Learning. The plan, begun in fall 2006, is discussed in detail in the report.

Although FCC has a new assessment plan in place, the report uses various assessment data from the past three years to report on progress made at the school since its 2004 SLOAR.

All general education competencies are defined except for scientific reasoning. Most assessment occurs at the course level and examples of measurements are provided. For instance, the Visual and Performing Arts Department assesses critical thinking through a rubric-scored writing assignment that students prepare after a visit to an art gallery, museum, or concert/theatre production. As a result of this assessment, faculty are currently rethinking how projects can specifically target the outcome of critical thinking.

As a result of the reorganization of FCC's assessment processes, no trends in data were reported for any of the general education competencies. Also, no results were given for assessments conducted to measure student progress with technology.

Garrett College

Institution's Executive Summary of 2007 Learning Outcomes Assessment Report

The 2007 Student Learning Outcomes Assessment Report outlines Garrett College's progress to date toward developing a comprehensive program for identifying and assessing student learning outcomes at the institutional, programmatic, and course levels; and describes how results from these assessments are being used to improve teaching and learning. Particular emphasis is given to the five competencies relating to general education and essential skills identified in Standard 12 of the Middle States Commission on Higher Education's "*Characteristics of Excellence in Higher Education*."

In fall 1997, Garrett College's academic division began development of a comprehensive student learning outcomes assessment plan. Each of the plan's three components, general education (institutional) assessment, program assessment, and course-level assessment, was to be developed and implemented incrementally, beginning with general education. From fall 1997 through fall 1998, prior to the Middle States accreditation team visit in spring 1998, the College's faculty worked as teams to establish six core learning goals for the general education program. Based on these six learning goals, the College's general education outcomes assessment plan was completed in fall 1998 and implemented in spring 1999. The plan was modified in 2003 and 2004, ultimately resulting in the following eight student learning goals:

Information literacy skills involve a set of abilities requiring individuals to recognize when information is needed and to have the ability to locate, evaluate, and effectively use the needed information. It is common to all disciplines and requires integration into the entire curriculum to be effective. Information literacy forms the basis for lifelong learning.

Communication skills include making connections that create meaning between one's self and his or her audience; speaking, reading, writing, and listening effectively; using electronic media, technology, and data effectively; and having information literacy skills that enable students to find, evaluate, incorporate, and present information effectively.

Critical analysis and reasoning skills involve the ability to engage in clear and critical analysis of situations, events, issues, ideas, and texts by fusing experience, reason, and training into considered judgment.

Scientific literacy and quantitative reasoning skills include the use of appropriate scientific, mathematical, or statistical models in interpreting quantifiable phenomena and the use of scientific, mathematical, or statistical symbols, techniques, and logic in solving problems of a quantifiable nature.

Information management skills involve the ability to use and apply electronic media for research, communication, and practical application.

Cultural and global perspective pertains to an awareness of global issues and an appreciation of cultural dynamics through different disciplines.

Personal and interpersonal skills involve the awareness and application of those skills, attributes, and behaviors that enable an individual to achieve personal, academic, and professional success.

Academic and technical proficiency in the major is the ability to demonstrate competency, as defined by individual degree programs, in both academic and technical venues. Such proficiency is integral to a learner's ability to enjoy success in his or her chosen field of study, either at a senior institution or in a vocational field. It should be noted that this last goal is an institutional learning goal only and not a goal for general education; the College's institutional learning goals and its general education learning goals are otherwise identical.

These broad learning goals parallel and expand on the five competencies identified in Standard 12 of the Middle States Commission on Higher Education's "*Characteristics of Excellence in Higher Education*," and their definitions reflect the combined energies and reflections of Garrett College's full-time faculty and administration. For each learning goal, the College has developed stated competencies; strategies to enhance achievement; outcomes; and direct and indirect measures for each outcome. (See Attachment 1 for a copy of the College's general education outcomes assessment plan.)

As indicated above, GC's general education outcomes assessment plan was completed in fall 1998 and implemented in spring 1999. The Dean of Academic Affairs recommended that, on a pilot basis, the Collegiate Assessment of Academic Proficiency (CAAP) be used to measure several of the College's institutional learning goals, and the faculty concurred with this recommendation. Since spring 1999, and each spring thereafter, the College has administered the CAAP or a similar instrument (the Academic Profile was administered in 2002) to all of its degree candidates. Prospective graduates are required to complete the critical thinking/reading, writing skills, and mathematics portions of the CAAP. Beginning with the 2004 graduating class, students have completed the written essay portion of the CAAP instead of the writing skills portion, which employs uses a multiple choice test format in order to gauge students' writing skills.

As it is currently being used, the CAAP addresses only three of the learning goals that have been established for general education; the College has identified other assessment measures for those goals not assessed by the CAAP. As an example, student achievement of personal or interpersonal skills will be assessed biennially using the Community College Survey of Student Engagement (CCSSE), which was administered for the first time in spring 2006. In some instances, assessment of students' skills will occur primarily at the course level, such as for information management skills or scientific literacy. (The quantitative reasoning skills portion of the latter goal is assessed on the CAAP.) Information literacy is being evaluated both through the use of a nationally available measure, the Texas Information Literacy Tutorial, and through outcomes that are assessed at the course level.

In fall 2001, Garrett College began work on developing programmatic outcomes assessment plans, using a programmatic assessment model that has been used by a number of two- and four-year institutions. Outcomes assessment plans had been completed for most of the College's transfer and career programs by fall 2002. However, with the publication of Student Learning Assessment: Options and Resources by the Middle States Commission on Higher Education in

spring 2003, the College concluded that the approach it had been taking in developing its outcomes assessment plans, i.e., the creation of three completely separate and unrelated plans for assessing general education outcomes, programmatic outcomes, and course-level outcomes, was unworkable, primarily because there was no linkage between the College's learning goals at the institutional level (i.e., for general education) and the programmatic learning goals that had been identified. The programmatic assessment plans also relied almost entirely on the use of indirect measures, such as student performance at receiving institutions. At that point, the College decided that it would be more prudent to develop entirely new plans rather than to rework the old ones.

The new programmatic outcomes assessment plans incorporate learning outcomes that link with the College's institutional (general education) learning goals, and they rely primarily on the use of direct measures of student outcomes. (See Attachment 2 for an example programmatic outcomes assessment plan.) These plans were essentially completed by spring 2005, but as yet, they have not been fully implemented. While some of the programmatic learning outcomes will be evaluated through the use of measures such as portfolios or capstone projects, many outcomes will be assessed at the course-level. Thus, full programmatic assessment cannot occur until GC's course-level outcomes assessment plans have been completed and implemented.

Faculty and administrators began work on developing course-level learning outcomes assessment plans in spring 2005, although some preliminary work had begun much earlier in fall 1996 when faculty began revising many of their course syllabi to include measurable learning objectives. However, these objectives needed to be modified to link with the institutional and programmatic learning goals that had already been established, and they needed to be restated in the form of learning outcomes. Each full-time faculty member was directed to identify the student learning outcomes and develop assessment plans for four courses by spring 2006, with priority being given to courses which fulfill general education requirements (GERs). (See Attachment 3 for an example course-level learning outcomes assessment plan.) This task was not fully accomplished until fall 2006 when eight courses were selected to use in a pilot of GC's course-level outcomes assessment project. Up to that point, relatively little thought had been given as to how the assessment data would be collected, managed, and analyzed. An outside consultant was hired to assist the College in developing a vehicle through which the outcomes assessment data for each course could be gathered, managed, analyzed, and reported. This process resulted in the creation of the Student Outcomes Assessment Measurement (SOAM) and Faculty Outcomes Assessment Measurement (FOAM) instruments in fall 2006.

The SOAM and FOAM are web-based, use a survey-type format to gather course assessment data, and incorporate multiple measures. A separate SOAM and FOAM are created for each course. Due to software limitations and the need to keep the assessment process manageable, each SOAM/FOAM incorporates a fixed number of four learning outcomes. Students complete the SOAM (on-line) either near or at the end of the course. At the conclusion of the semester the course instructors complete the FOAM (also on-line), using their students' grades and the results from the SOAMs and student evaluations of the course. In order to complete the FOAM, the instructors must review and analyze all the pertinent assessment data and report the results; they are also asked to comment on how the learning outcomes can be improved. (See Attachments 4 and 5 for an example SOAM and FOAM.) The Dean of Academic Affairs and other

administrators can access the SOAMs and FOAMs (on-line), and can obtain summaries of the results by individual courses, course grouped by instructor, courses grouped by discipline or department, courses grouped by program, courses grouped by semester, etc.,.

As indicated above, eight courses were assessed as a pilot project in the fall 2006 semester. As a result of that pilot, some modifications were made to the format of the SOAM and particularly to the format of the FOAM. For the spring 2007 semester, each full-time faculty member was required to assess learning outcomes for two courses. Program directors with teaching responsibilities were each required to assess learning outcomes for one course. All total, learning outcomes were assessed for 31 courses for the spring 2007 semester. For the fall 2007 semester, a total of 42 courses are scheduled for assessment, including 8 courses taught by part-time faculty or adjuncts; 45 courses will be assessed in spring 2008, including 11 courses taught by part-time faculty or adjuncts.

Most of the courses that have been assessed or that will be assessed next year satisfy either general education, or program requirements. Even though Garrett's number of course offerings is relatively small when compared with those of other institutions, it does not have the resources to assess every course every semester, or every section of every course for which multiple sections are offered. Over the next year, the College will develop a plan and schedule for when and how often courses will be formally assessed. In order for learning outcomes assessment results to be useful, Garrett College feels it will be necessary to review several semesters' results before any substantive changes in pedagogy or curriculum can be made. It will likely be another year (spring 2008) before the College has sufficient data on course level student learning outcomes to begin making improvements based on such data.

It should be also noted that the College does employ a number of existing (mostly indirect) measures in order to assist in assessing learning outcomes at the various levels. As appropriate, these measures have been incorporated into the College's formal program for assessing student learning outcomes. Such measures include acceptance rates of students applying to programs at transfer institutions; student performance at Maryland institutions after transfer from Garrett (with data regularly collected by the Maryland Higher Education Commission); grades and passing rates in courses, e.g., GER math and communication courses; graduate satisfaction with educational goal achievement and quality of transfer preparation as measured by exit surveys administered to all graduates; employer satisfaction with career program graduates; classroom observations; student evaluations of instruction; and information gathered periodically during environmental scans conducted preliminary to development of the College's Strategic Plan.

While results from GC's course-level learning outcomes assessment project are just now becoming available, at the institutional level (general education), the College has now accumulated eight year's worth of data from the CAAP (and the Academic Profile in 2002). The College has analyzed these data and has used the results in an effort to improve pedagogy and curricula with the ultimate goal of improving student learning. For example, faculty have been working to incorporate more critical thinking and reading activities into the classroom in response to concerns over the apparently low scores recorded on the critical thinking/reading portion of the CAAP. The College's English faculty have also adjusted their teaching as well as classroom assignments to include more persuasive writing exercises and writing to specific

audiences. This change was made as a result of students' poor performance on the written essay portion of the CAAP in spring 2004, which required students to persuasive letters.

However, despite these improvements, analysis of the CAAP results from 1999 to 2006 for all three of the areas tested reveals no definite trends, although students' performance on the writing section for 2005 and 2006 shows very significant improvement over 2004 performance (the first year the essay test was given), and a slight improvement over the four preceding years. The College has had some concerns about the efficacy of continuing to use the CAAP as a direct measure for several reasons: (1) the cohort taking the test nationally is not comparable to GC students since all Garrett students are required to take the test whereas at other institutions only sample cohorts are tested; (2) the data from the CAAP do not correlate well with students' transfer performance upon leaving Garrett College (their performance has generally been better than that indicated by the CAAP); and (3) American College Testing (ACT) recommends caution in evaluating results for a cohort smaller than 100 students (the number of Garrett students taking the test has so far been well below that number). The validity of the results from the CAAP may also be affected by the fact there is no penalty for poor performance, although students' results are now shown on their transcripts. Clearly, the extent to which students take the test seriously can markedly affect the results. The College continues to analyze and consider the efficacy of the results yielded by the CAAP test. This task may become easier as more results from individual course assessment become available

Garrett College is well aware that student learning outcomes assessment is an evolutionary process dependent upon the energy and attention of its administration, faculty, and staff, as well as the efforts of its students. The College thus sees the formal assessment of learning outcomes as an ongoing process which will continue to be refined and improved across and throughout the life of the institution. Measuring outcomes has been crucial, for instance, to the success of the College's promotion of communication and quantitative reasoning skills. Since 1991, the College has tracked data involving success rates in mathematics courses, with similar tracking undertaken since 1999 for language arts courses. These results are analyzed and shared on a semester basis. Additionally, information about pre-, mid-, and post-term local instruments is shared with faculty in particular disciplines, and professional development meetings for faculty in those disciplines are subsequently held, particularly in the mathematics and language arts divisions. These meetings become strategy sessions in which modifications to course learning outcomes and syllabi are discussed in light of student success as indicated on standardized instruments.

Ultimately, outcomes assessment provides the foundation for institutional decision making at Garrett College, and a clear connection exists between the College's assessment program and its institutional decision-making process. Indeed, as implementation of its Academic Outcomes Assessment Plan proceeds, the College will rely increasingly on assessment data to inform its planning and decision-making processes. The connection between continuous assessment, planning, and decision making is vital to the College's ability to effectively achieve its mission: to provide quality higher education, lifelong learning, and access to the universe of information so that individuals, businesses, and the community can achieve personal, entrepreneurial, and collective success.

MHEC Staff Review of 2007 Student Learning Outcomes Assessment Report

Garrett College uses two surveys to frame its student learning outcomes assessment program: the Student Outcomes Assessment Measure (SOAM) and the Faculty Outcomes Assessment Measure (FOAM). Both surveys are completed at the end of a semester course and incorporate direct and indirect measures of student learning. Fall 2006 was the pilot semester for the SOAM and FOAM.

All competencies have been defined and are being measured in some way. Various examples of assessments are discussed in the report. Results from the Collegiate Assessment of Academic Proficiency (CAAP) are discussed: scores from 1999-2006 are given for written and oral communication, scientific and quantitative reasoning, and critical analysis and reasoning. Alumni survey results are given for technology competency.

Assessments for all of the general education competencies have resulted in faculty training. For example, “professional development activities emphasizing the efficacy of assessment rubrics, the holistic assessment of writing, and the significance of assessing students’ critical thinking and reading skills have been delivered in response to concerns about students’ communication skills and the assessment of such skills.”

Hagerstown Community College

Institution's Executive Summary of 2007 Learning Outcomes Assessment Report

The central purpose of Hagerstown Community College (HCC), as a small, comprehensive regional community college in Western Maryland, is the offering of a diverse array of courses and programs designed to address the curricular functions of university transfer, career entry or advancement, adult basic skills enhancement, general and continuing education, as well as student and community service. Undergoing transition and facing many challenges, HCC's vision is to strive to be above all else: *"a learner-centered, accessible lifelong learning institution dedicated to student and community success..."*

A culture of accountability has been created at Hagerstown Community College. HCC's assessment initiatives are intended to be an integral component of a long-term institutional process of planning, review and the feedback of outcomes information to improve the quality of HCC's instruction, programs and services. With its limited resources, the College focuses on its mission based functions and related vision, carefully choosing strategically important directions that support all mission based areas. The College's integrated planning, budgeting and evaluation model is the central process for the College's future growth and development. This "plan, do, assess, and adjust" model is the foundation for strengthening and continuously improving the institution. Student learning outcomes assessment is a vital component of strategic planning. Outcomes data supports planning at the unit level, which helps shape institutional goals and priorities. As a result, HCC is implementing outcomes assessment programs in academic and non-academic areas to move the College toward a successful future with a clear vision, effective planning, institutional effectiveness and resource allocation processes.

Institutional effectiveness at HCC is an internal process of planning and evaluation intended to ensure that its performance matches its strategic goals and objectives. The term "institutional effectiveness" refers to the process by which HCC articulates, in measurable terms, its mission, vision and values, and then assesses success levels using internal and external data as part of the College's annual and strategic planning/budgeting/improvement cycles. The Institutional Effectiveness Plan is the blueprint and key to attaining the College's vision. Along with the Institutional Effectiveness Plan, the College's mission and vision is being realized with the integrated implementation of its strategic and annual operational plans, the Student Learning Outcomes Assessment (SLOA) Plan, the 2004 Middle States Self-Study, the Facilities Master Plan, and other major institutional planning documents.

As HCC has become more experienced with student learning outcomes assessment, strategies, activities, results, interventions and planning have become more integrated and broadly based. Faculty workshops have frequently focused on SLOA. External and internal SLOA consultants have worked with faculty to develop course and program outcomes and assessment processes. As the SLOA effort has broadened to encompass virtually all courses and programs, the College has recognized a need to provide more concentrated, in depth assistance to faculty. Beginning in Fall 2006, five SLOA facilitators have served as academic division liaisons. They work with faculty in their divisions to continue the assessment process, analyze assessment data, make curricular modifications and identify resource needs as part of the College's unit planning and evaluation process.

The College is working toward the goal of assessing the general education outcomes of all students graduating with associate degrees. Through general education assessment, the

College demonstrates that its graduates and students can effectively: communicate; think critically and apply scientific and quantitative reasoning skills; and demonstrate technological competence, as well as other general education learning outcomes. The six areas of study, which align with the Middle States Commission on Higher Education (MSCHE) and Maryland Higher Education Commission (MHEC) standards, that have been identified to ensure that students achieve the desired goals include English, Arts and Humanities, Information Literacy, Behavioral and Social Sciences, Mathematics, and Biological and Physical Sciences. For each area of study, general education learning outcomes have been established. The College uses, but is not limited to, the methodologies and instruments listed below, which are described in detail in the Student Learning Outcomes Assessment Report to measure each of the general education competencies identified by MSCHE and MHEC.

❖ **Written and Oral Communication**

- Collegiate Assessment of Academic Proficiency (CAAP)
- Measure of Academic Proficiency and Progress (MAPP)
- Community College Survey of Student Engagement (CCSSE)
- Capstone activity using scenarios and rubrics: Introduction to Sociology (SOC 101)
- Research paper rubric: English Composition (ENG 101)
- Human Anatomy and Physiology Society National Competency Exam for Human Anatomy and Physiology I (BIO 103) and II (BIO 104)
- National Council Licensure Examination – Practical Nursing (NCLEX-PN)
- Portfolio – Graphic Design Technology Program
- Interdisciplinary Assessment Activity (Capstone) - Mock mass casualty practical assessment for Administration of Justice, Nursing and Paramedic Emergency Services

❖ **Scientific and Quantitative Reasoning**

- Collegiate Assessment of Academic Proficiency (CAAP)
- Measure of Academic Proficiency and Progress (MAPP)
- Community College Survey of Student Engagement (CCSSE)
- Human Anatomy and Physiology Society National Competency Exam for Human Anatomy and Physiology I (BIO 103) and II (BIO 104)
- Common five-question supplement to all final exams/rubric in College Algebra (MAT 101)
- Assessment Technologies Institute (ATI) Examinations - Practical Nursing
- National Council Licensure Examination – Practical Nursing (NCLEX-PN)
- Interdisciplinary Assessment Activity (Capstone) - Mock mass casualty practical assessment for Administration of Justice, Nursing and Paramedic Emergency Services students
- American Chemical Society (ACS) exams: General Chemistry (CHM 101, 102)

❖ **Technological Competence**

- On-line common exams for content units: Introduction to Information Technology (IST 102)

- Common on-line assessment questions
- Community College Survey of Student Engagement (CCSSE)
- Portfolio – Graphic Design Technology Program
- Interdisciplinary Assessment Activity (Capstone) - Mock mass casualty practical assessment for Administration of Justice, Nursing and Paramedic Emergency Services

❖ **Critical Analysis and Reasoning**

- Collegiate Assessment of Academic Proficiency (CAAP)
- Capstone activity using scenarios and rubrics: Introduction to Sociology (SOC 101)
- Research paper rubric: English Composition (ENG 101)
- High impact course assessment: Introduction to Information Technology (IST 102)
- Human Anatomy and Physiology Society National Competency Exam for Human Anatomy and Physiology I (BIO 103) and II (BIO 104)
- Community College Survey of Student Engagement (CCSSE)
- Portfolio – Graphic Design Technology Program
- Interdisciplinary Assessment Activity (Capstone) - Mock mass casualty practical assessment for Administration of Justice, Nursing and Paramedic Emergency Services students
- External validation and departmental juries – Music

The process of assessing student learning in a systematic way has led to positive outcomes for students, as well as for faculty and staff. The involvement and leadership of faculty as the content specialists is essential as they bring relevant experience and expertise to the outcomes assessment process. They must have ownership to maintain a commitment over time and determine useful interventions and strategies for change. Assessment has fostered communication among faculty, including adjuncts, and helped to create uniformity across course sections. Faculty have begun to use more formative assessment techniques to support outcomes assessment. As part of the institutional effectiveness process, including SLOA, faculty and staff have become more familiar with the importance of data analysis and interpretation for planning purposes.

Assessment, curriculum development and review, and planning are interrelated processes that foster accountability at all levels. An effective outcomes assessment program supports and feeds vital and relevant curriculum that meets the needs of students and the community. The relationship between these variables, which includes measured outcomes and strategic goals, drive the assessment process toward continuous improvement, accountability and the fulfillment of the College's mission.

MHEC Staff Review of 2007 Student Learning Outcomes Assessment Report

Hagerstown Community College has a Student Learning Outcomes Assessment (SLOA) plan that was written in 2004. The plan outlines “methods and tasks for the assessment of general

education.” According to the report, HCC currently focuses its assessment at the program and course level.

Definitions for each of the general education competencies are provided, as well as direct and indirect measures used to assess them. The college has used the Collegiate Assessment of Academic Proficiency (CAAP) test to assess general education outcomes; the Measure of Academic Proficiency and Progress (MAPP) exam was administered for the first time in spring 2007.

As part of its SLOA plan, HCC selected several “high impact” courses to assess student learning outcomes. For example, special focus was given to English 101; in fall 2005, research papers were graded by a common rubric. After analysis of this assessment, the rubric was revised for the spring semester. Also, all faculty were involved in a norming session “to conduct item analysis and determine areas in which students need to improve.” The English faculty has also moved to add a portfolio assessment for students pursuing the A.A. Option in English.

Comfortable with its course-level assessment measures, HCC now plans to consider program and institutional assessments.

Harford Community College

Institution's Executive Summary of 2007 Learning Outcomes Assessment Report

Harford Community College (HCC) has been actively involved in the development and implementation of a plan of assessment to determine student learning outcomes and competencies at the course, program, and institutional levels since 1992. HCC will submit its Periodic Review Report (PRR) to the Middle States Commission on Higher Education (MSCHE) in June 2007, and after two years of campus-wide participation in the PRR process, HCC believes that it has successfully addressed the recommendations from its own Self-Study Report in 2002 as well as the subsequent MSCHE Team recommendations that same year. These recommendations and the progress made in the process for improving student learning outcomes and assessment, the dissemination of assessment results, the impact of campus-wide student learning assessment activities, and the support provided to full and part-time faculty and staff in outcomes assessment reporting will be summarized in this 2007 Maryland Higher Education Commission Progress Report.

ASSESSMENT SUMMARY: 2004-2007

HCC has made significant progress in capturing, tracking, disseminating, and acting upon Student Learning Outcomes Assessment data since its last MHEC Student Learning Outcomes Assessment Progress Report in 2004. In August 2005, the Office of Instruction added an Assistant to the Vice President for Instruction (VPI) position to concentrate on student learning outcomes assessment and reporting.

Under the leadership of the Office of the VPI, division deans, and faculty, a comprehensive Student Learning Outcomes Assessment and Improvement Plan (SLOAI) was published in April 2007. In addition to providing valuable background information on the history of student learning outcomes assessment at HCC, the plan also charts all levels of responsibility for outcomes assessment on campus, provides detailed division assessment plans through the year 2010, and provides a comprehensive timeline for campus-wide student learning outcomes assessment activities at the course, program, and institutional levels. In fall 2007, a taskforce will be formed to evaluate the effectiveness and sustainability of the new SLOAI Plan. Recommendations will be forwarded to the VPI and Deans' Group, and revisions to the plan will be made as is necessary. HCC strongly believes that the SLOAI Plan must remain fluid and sustainable.

In 2005-2006, the Office of the VPI convened several taskforces to assess and review the College's program review guidelines, course syllabi, and student evaluation of instruction instruments. The work of these taskforces resulted in the implementation of new Program Review Guidelines for Instructional Programs and new Minimal Standards for Course Syllabi that are designed to reflect the student learning outcomes assessment process at the course, program, and institutional levels. Sample student evaluation of instruction instruments are in the process of being evaluated by the campus community.

To assist faculty and staff in the outcomes assessment reporting process, an Instructional Resource Center (*IRC*) for faculty and professional staff was realized in fall 2005. The *IRC* provides a high quality learning environment for credit and non-credit instructors. The *IRC* is a collaborative endeavor between the Office of the Vice President for Instruction and the Division of Library and Instructional Resources. The *IRC* encourages the exploration of new approaches to teaching and learning by providing a wide variety of services to faculty and other instructional staff. It is a hands-on facility that allows faculty and instructional staff to experiment and create course content with the assistance of highly trained staff. The Assistant to the Vice President for Instruction offers on-going student learning outcomes assessment reporting guidance by way of workshops and walk-in clinics. The needs of faculty and instructional staff are met through a continuous improvement approach in an atmosphere of investigation and innovation. The *IRC*'s companion website provides a Student Learning Assessment resource page that supports faculty efforts in all phases of student learning outcomes assessment reporting and celebrates faculty innovation in the area of assessment and curriculum enhancement.

Currently, HCC maintains two separate sets of assessment documents: one for the assessment of student learning outcomes for the instructional areas and another for the assessment of administrative/service unit outcomes. These documents provide evidence of institutional effectiveness relating to how well HCC is fulfilling its mission, achieving its goals, using the assessment results to improve student learning, services and programs, and informing its planning and resource allocation.

Additionally, HCC participates in MHEC's Performance Accountability Reporting, which includes the following:

- Institutional Performance Accountability Report (PAR) annually;
- Student Learning Outcomes Assessment Progress Report every three years;
- Minority Achievement Report every three years

GENERAL EDUCATION AND ESSENTIAL SKILLS COMPETENCIES

Since 1999, Harford Community College has maintained eight (8) core competencies expected of all graduates, which complement and further define HCC's General Education goals as published in the College Catalog. HCC's eight *Academic Outcomes* represent the skills, knowledge, and abilities that students develop through their coursework and other educational experiences. *Academic Outcomes* are effected through course, program, and institutional objectives and drive strategic planning and budgeting. Harford Community College's total degree programs increase each student's ability in the areas of written and oral communication, scientific and quantitative reasoning, critical analysis and reasoning, and technological competency. The *Academic Outcomes* relevant to MHEC's General Education and Essential Skills Competencies are defined by this institution as follows:

1. Written and Oral Communication

Use Standard English to express and receive information using oral and non-verbal cues as well as standard written English.

2. Critical Thinking

Judge the plausibility of specific assertions, weigh evidence, assess the logical soundness of inference, construct alternative hypotheses and render critical judgment.

3. **Science and Technology**

Demonstrate an understanding of science and technology, their impact on society, daily life and the environment.

HCC's institutional goals for General Education include:

1. To introduce students to the fundamental principles, concepts and methods essential for the acquisition of knowledge basic to mathematics, the physical and natural sciences, the social and behavioral sciences, the arts and humanities, and English composition.
2. To develop in students an ability to connect knowledge across disciplines.
3. To foster in students qualities of open minded inquiry and rational assessment of data.
4. To develop in students the ability to think and express themselves analytically, critically and creatively.
5. To provide the opportunity for students to apply their knowledge and skills in solving complex problems.
6. To provide the knowledge needed to apply ethical principles to inquiry.
7. To prepare students to adapt to the increasing integration of information technology in all fields of knowledge.
8. To develop in students the ability to read with comprehension, to communicate effectively in oral and written English, and to perform numerical analysis at a college level.
9. To provide students with an understanding of their physical and psychological well-being in the context of their social, aesthetic, political, and physical environment

INDIRECT AND DIRECT MEASURES OF ASSESSMENT

HCC employs multiple measures, methods, instruments, and analyses to determine student learning outcomes and essential skills competencies. These assessments are conducted at the course level by faculty and deans using the new Student Learning Outcomes Assessment Reporting form (**Attachment B**), at the program level by way of the updated Program Review Process for Instructional Programs (**Attachment C**), and at the institutional level by Student Services and the Office of Institutional Research (OIR). The new SLOAR form captures direct and indirect measures of assessment, records student learning outcomes, and documents improvements, enhancements, and follow-up assessment initiatives. Since the MHEC Progress Report in 2004, several comprehensive program level assessment projects have been completed and the data used for program modifications and enhancements. Findings are used to review and evaluate institutional practices and procedures associated with the findings in the instructional areas by the Vice President for Instruction and division administrators. Additionally, data collected that are indirect measures at the course and program levels are forwarded to division deans and their faculty to enhance analyses of direct measures collected at the discipline and/or division level.

Specific examples of course, program, and institutional assessment measures, results, and improvements made based on the analysis of the assessment data will be documented in detail in the body of this report.

Institutional: College personnel use campus data and national benchmarks from surveys to assess and improve institutional and student learning outcomes on a continual basis. To improve overall assessment efforts, the College has conducted key surveys of students and employees in recent years and has plans to continue these survey efforts. These include:

- **PACE** – Personal Assessment of the College Environment Survey. The PACE survey is designed to assess employees’ satisfaction with the college climate. It was first administered to employees in spring 2005 and will be re-administered every 3-4 years.
- **NLSSI** – Noel Levitz Student Satisfaction Inventory. The NLSSI has been administered in fall 2000 and 2002 and was administered in spring 2007. The two to three year cycle was interrupted to accommodate the Maryland Statewide consortium administering the CCSSE survey.
- **CCSSE** – Community College Survey of Student Engagement. This survey provides information on student engagement, a key indicator of learning and, therefore, of the quality of the college.

Programmatic:

- HCC’s Office of Institutional Research produces a program review data shell that compares programmatic outcome measures for declared majors over four academic years. The data include outcome and assessment measures such as year-to-year retention, number of degrees awarded, graduation rates, transfer rates, and course enrollments.
- As part of the new SLOAI plan, division deans and faculty have worked to review, revise, and in some instances create, measurable program goals. Since 2004, more than a dozen program reviews have been submitted to the Office of the VPI and Deans’ Group for review and follow-up. Faculty, program coordinators, academic advisors, librarians, and deans participate in instructional program reviews that are cyclically scheduled every three to five years. One of the major purposes of the program review process is to ensure that outcomes are assessed for their effectiveness, and specific recommendations for change, modification, or termination are included in each program review document. In fall 2006, a Program Review Taskforce was convened to address the use of student learning assessment data as captured by faculty every semester when completing the SLOAR form. The taskforce spent a year reviewing and revising the program review process and made recommendations to the VPI and Deans’ Group based on national benchmarks and the Middle States’ standards as described in *Characteristics of Excellence*. In spring 2007, the final version of the Program Review Guidelines for Instructional Programs (**Attachment C**) was published. As of June 1, 2007, all Programs Reviews will be subject to the new guidelines as published in April 2007.

Course:

- Credit and non-credit faculty (full and part time) continue to improve their efforts to develop and refine course-level learning objectives and outcomes. In spring 2006, full time faculty members began to use a new SLOAR form to monitor success in achieving student learning objectives and incorporating improvements into future classes. In fall

2006, part time faculty began using the new SLOAR form as well, and division deans continue to collect and analyze SLOAR forms from full time faculty and an increasing number of part-time faculty. **Attachment B** contains sample SLOAR forms from several divisions on campus. In addition to reporting on course and program-level assessment activities and enhancements during the cyclical program review, division deans are scheduled to begin submitting an annual review of course and program level assessment activities and analyses.

SUMMARY

Since 1998, Maryland Community Colleges have been required to provide to MHEC every three years a report on their progress in improving student learning outcomes, instructional effectiveness, and curricula. This ongoing process of student learning outcomes assessment serves more than external reporting requirements. The process, in conjunction with the other components of assessment, enables HCC to gauge its success in maintaining academic quality, helping undergraduates to improve their skills, and enhancing institutional effectiveness.

HCC has demonstrated that it has been actively engaged in student learning outcomes assessment activities, and that the College is committed to the continuous improvement of student learning college-wide. The College began by looking at indirect measures provided by OIR as it started to develop a systematic plan for course and program-level assessment. HCC is now in the sixth year of its college-wide effort to collect course-level outcomes assessment data and to interrelate these outcomes with program and institutional measures. Faculty participation has been remarkable over the last three years, and since HCC's last MHEC Progress Report in 2004, faculty, staff, and administrators have attended dozens of local, regional, and national student learning outcomes assessment workshops, including each of the Middle States' Assessment Conferences. The College will continue to provide professional development opportunities for its faculty and staff as it continues to assess and reassess what and how students learn.

MHEC Staff Review of 2007 Student Learning Outcomes Assessment Report

Harford Community College has been involved in assessment activities since 1992. In 2005, an Assistant to the Vice President for Instruction was added to concentrate on learning outcomes and reporting. In April 2007, a Student Learning Outcomes Assessment and Improvement plan (SLOAI) was published. A copy of the plan is included with the report; the plan includes information from several divisions at HCC and how each will approach assessment in the next five years.

Harford has defined all of the required general education competencies. It assess competencies at the course, program, and institutional level. An example of the way in which assessment is used is reported for the nursing program. According to NCLEX-RN results, as well as student surveys and test blueprints, nursing faculty found that students struggled with "pharmacology related applications/synthesis questions." Consequently, pharmacology questions now constitute "at least 15%" of any given exam in a nursing course at HCC. Also, the program's first nursing course now includes a pharmacology module.

At the institutional level, HCC administered the Noel Levitz Student Satisfaction Inventory (NLSSI) in spring 2007; the Community College Survey of Student Engagement (CCSSE) was also mentioned in the report. And, as part of the school's SLOAI plan, program reviews have been submitted to the Office of the Vice President for Instruction.

Howard Community College

Institution's Executive Summary of 2007 Learning Outcomes Assessment Report

Assessment at Howard Community College (HCC) is embedded, systematic, and long term. The college was founded on the principle of continuous improvement and this is still a guiding principle today. There is strong institutional support for assessment and the resources are in place to support this effort. The assessment program at Howard Community College is a model for assessment of academic competencies through direct and indirect measures. Faculty and staff are skilled in course-based assessment and measurement of student success in the classroom. Individual projects have demonstrated success in program areas and the division-wide success of students who either move into the workforce or transfer to a four-year school. The emphasis on systematic program assessment has broadened the course-based model to more closely link outcomes assessment with strategic initiatives, general education competencies, and program goals.

HCC is committed to Learning Outcomes Assessment, beginning either one new program or two new course-based assessment projects in every division each year. Lately, there have been expanded initiatives in assessing across the curriculum and across the institution. One-third of the annual department assessment projects are benchmarked against the performance of other institutions and/or national norms. Another third of the projects use external readers and evaluators. The remaining projects have developed locally relevant instruments to measure institution-specific outcomes and variables. Led by five strategic initiatives, six general education competencies, and well developed program and course goals, HCC continues to be a model of outcomes assessment for area community colleges and regional four-year public and private institutions, and an active participant in and contributor to learning outcomes assessment in higher education.

HCC collects academic assessment data in four ways. First, HCC is currently using one national instrument for evaluation, the IDEA course evaluation survey, administered in all courses taught by new and probationary faculty (full and part-time) and approximately 50% of the continuing faculty each semester. HCC continues to meet national norms on the IDEA. Previously, the college used the ETS-Academic Profile, administered on a periodic basis to incoming freshman and graduating students to measure core learning competencies; however, with the retirement of that exam by ETS, it began a project to examine all national products and decided to pilot the use of the Council for the Aid to Education's Community College Learning Assessment (CCLA) in FY2008. Second, middle and senior level managers examine course success rates per term and as trend data. They also look at the percentage of students with an overall GPA of 2.0 or higher over time.

Assorted Student Success Rate Trends			
	Fall 2004	Fall 2005	Fall 2006
Overall Course Success Rate	83.6%	83.1%	83.7%
<i>(source: Grade Distribution Reports)</i>	13,350/ 15,965	13,829/ 16,635	14,735/ 17,598
Overall Academic Success Rate	FY04	FY05	FY06
<i>CUM GPA > 2.0</i>	70.8%	71.3%	70.2%
<i>(source: End of term (EOT) files)</i>	8,338/ 11,781	8,869/ 12,444	8,904/ 12,678

Third, the college collects data about student perceptions of their learning and experience here at the college through the Yearly Evaluation of Services by Students (YESS) survey. YESS results have consistently demonstrated through the years that close to 80% or more of students are very satisfied or satisfied with the overall quality of instruction at HCC. Along with all other Maryland community colleges, HCC took part in the Community College Survey of Student Engagement (CCSSE) in the spring of 2006. When asked to evaluate their entire educational experience at HCC, 87% of the students said it was good or excellent. Other results from the CCSSE show that HCC exceeded the benchmark scores on each one of the survey's five indicators.

2006 CCSSE Composite Scores					
Effectiveness Indicators:	HCC	Md.CCs (16 colleges)	Medium CCs (105 colleges)	ALL CCSSE (447 colleges)	Benchmark
Active & Collaborative Learning	52.4	50.2	49.9	50.0	50.0
Student Effort	53.5	51.5	49.7	50.0	50.0
Academic Challenge	53.1	51.4	50.1	50.0	50.0
Student-Faculty Interaction	54.6	52.6	49.9	50.0	50.0
Support for Learners	52.1	50.1	49.4	50.0	50.0

Fourth, HCC requires all academic divisions to submit two annual course-based assessment plans or one program review plan on a three year cycle, with an average of 30 assessment projects running in any given academic year.

Course and program review at Howard Community College demonstrate similar student satisfaction and statistically significant gains in student learning across MHEC's four general education competencies: written and oral communication, scientific and quantitative reasoning, critical analysis and reasoning, and technology. Middle States identifies one more competency: information literacy. HCC also has identified one additional general education competency: global awareness.

Howard Community College Learning Assessment Projects for 2007

Competency	Institutional Review	Program Review	Course Review	Assessment Measures
Written and oral communication Ability to communicate effectively in oral and written English.	Academic Profile (FY 05-06) CCLA (coming)		English 085	Survey, Pre/Post tests based on rubrics
			English 097	Pre/Post MSCEIT test (a nationally normed Emotional Intelligence instrument); demographic and 'attitude towards writing' survey; Student essays, Pre/Post performance test
			EDUC 111	Pre/Post-Test, End-of-term results (EOT)
	IDEA Survey	EMS Program		Gradebooks Expert panel
Scientific and quantitative reasoning Ability to identify and use fundamental principles, concepts, and methods essential for the acquisition and application of knowledge across the disciplines.	Academic Profile (FY 05-06) CCLA (coming) IDEA Survey		Math 070	Course success rates
			Engineering 100	Qualitative analysis of syllabus, student survey and classroom observation
			Biology 105	Course success rates, Pre/Post tests, Perception of course survey
			Calculus 101,102,103	National Exam, Qualitative benchmarking of Calculus syllabus with main transfer institutions
			Physics 110	Mechanics Baseline Test (national); demographic survey, Pre-Post test
			Chemistry 102	ACS Exam (national)
			Math 131	Survey and pre-test, course grades
Critical analysis and reasoning Ability to read, think, and express ideas analytically, critically, and creatively; and to value and utilize open-mindedness inquiry, and rational assessment of data.	Academic Profile (FY 05-06) CCLA (coming) IDEA Survey		Geography 101, 102	Qualitative analysis of classroom discussion and take home essay tests
			Soc Sci/Critical Thinking	Pre/Post-Exams
			BMGT	EOT, focus groups
			Business Admin	Survey, grades, focus groups
			FYE/FLC	Student/Faculty Survey, EOT
			Music Theory Sequence	Pre- and Post-exams
			BMGT 100	Rubric, Exam, Demo Survey
			Nursing	HESI, Adult Learner, Gradebooks

Competency	Institutional Review	Program Review	Course Review	Assessment Measures
Technology Ability to adapt to the increasing integration of information technology in all fields of knowledge.	Pertinent Course Success Rate Trends IDEA Survey		Geology 117, 117N	Course grades, lab reports, lab quizzes, demographic data, interviews
			Math 064, 065, 067	Course Grades, Longitudinal study
			Digital Media	Expert Panel, Longitudinal study
	Health Care MGMT	Enrollment, graduation data		

Other General Education Competencies at Howard Community College

Competency	Institutional Review	Program Review	Course Review	Assessment Measures
Information Literacy Ability to recognize when information is needed and to locate, evaluate, and effectively use that information to solve complex, theoretical, and practical problems.	Pertinent Course Success Rate Trends IDEA Survey	Info Lit		Survey based on American Library Association (ALA) standards
		Applied Music		Rubric, Expert Panel
			CMSY 129	Course Survey, EOT, class grades
		Step-Up Coaching		Pre- and post-Student surveys, Coach Surveys, EOT
Global Awareness Ability to factor in global perspectives on issues and understand the interaction among self, society, and the environment.	Pertinent Course Success Rate Trends	Study Abroad		Partner college surveys.

Assessment of these competencies uses direct measures that include course-embedded assessment scored with a rubric; national exams and locally designed tests with test blueprints outlining what is being assessed; ratings of student skills in the context of class activities, projects, and discussions; score gains between entry and exit on tests, performance tasks, and writing samples; and portfolios of student work. Indirect assessment measures are also used. These measures include student grades and passing rates in assessed courses, and grades on course assignments not scored with a rubric. Student, course, and program outcomes for all competencies continue to meet and exceed identified goals and standards.

This report offers an overview of the outcomes assessment program at Howard Community College and a description of outcomes assessment projects currently underway at the college. The intent of this report is to demonstrate the extent to which assessment is an integral part of student success at HCC. Qualitative and quantitative data from these projects reveal statistically significant improvements in student learning. These data clearly demonstrate student success at the institution, program and course levels, and highlight the importance that the college places on assessment, evaluation, and continuous improvement.

One of the strengths of the HCC outcomes assessment program is the extent to which assessment data are used to improve student success. Not only are significant gains in student learning demonstrated through the extensive outcomes assessment program, data collected as a result of these projects are used to inform curricular improvement and decision-making, completing the feedback loop that is so vital to effective outcomes assessment. Faculty who participate in outcomes assessment projects are required to document the ways in which they use the results of their assessment projects to improve teaching and learning in their courses. These interventions are then re-evaluated to assess the impact on student success from these changes and modifications. In Physics 110 for example, some of the course improvements implemented as a result of that project were:

1. Permanent supplemental WebCT site for PHYS 110;
2. Purchase of Physics: Cinema Classics DVD set for interactive class activities that address major student misconceptions;
3. Use of more relevant current physics discussion question and problems with extraneous variables;
4. Implement Homework Format Policy (problem-solving method used by experts in the field) for harder multi-step problems; and
5. Administer math skills for physics diagnostic test during 2nd lab and send students scoring below 65% to math tutor.

In this way, teaching and learning on campus are constantly evolving and improving as a result of outcomes assessment.

MHEC Staff Review of 2007 Student Learning Outcomes Assessment Report

Howard Community College has developed its use of assessment from a classroom-based approach to a more comprehensive program and institution-wide undertaking. For example, Howard has used the Academic Profile (ETS), the Yearly Evaluation of Services by Students (the YESS, a locally developed survey instrument), the Community College Survey of Student Engagement (CCSSE), and the IDEA (for course evaluations). Examples of results from all of these measures are provided in the report.

All four general education competencies are defined, as well as the additional competencies of information literacy and global awareness. Many examples of assessment measures are cited; these include: pre/post tests in English, student survey and classroom observation in engineering, and exams in business management.

At the course level, Chemistry 102 provides a good example of the use of assessments to improve learning and teaching (course-based assessment is structured on a three-year cycle). Students were given the American Chemical Society general examination; their scores were then compared to the normed national average. Analysis of assessment has led the faculty to strengthen their lectures as well as practice exercises and exams given to students. The exam will be administered again to track improvement.

Montgomery College

Institution's Executive Summary of 2007 Learning Outcomes Assessment Report

I. Definition of Competencies

In spring, 2004, in accordance with the Middle States Association and MHEC guidelines the Montgomery College General Education Committee developed definitions for five competencies considered to be critical outcomes to the College's General Education Program. The five competency areas were: written and oral communication, scientific and quantitative reasoning, critical analysis and reasoning, technological competency, and information literacy.

II. How General Education Competencies are Assessed at Montgomery College

Montgomery College has developed and implemented a very comprehensive plan to directly assess the five competencies that are at the core of its General Education Program. Assessment of all five competencies is performed at the course level and involves approximately 50 of the most highly enrolled general education courses, each of which participates in the process on a periodic basis. Each assessment cycle requires two years to complete. The initial year is devoted to the planning, developing, and piloting of an assessment. During the second year the assessment is administered within all sections of a course, the data collected and analyzed, and faculty follow up by discussing the results and then filing an Outcomes Assessment Observations and Recommendations form on behalf of their discipline. By administering assessments in this way, consistency in the results is in large measure ensured. Additionally, all full-time and adjunct faculty become actively involved in assessing student learning outcomes for their course, and in particular, the general education competencies.

III. Assessment Results

A. Written and Oral Communication

In fall 2005, a direct assessment of students' ability to communicate in writing was administered in 236 (out of 263) sections in eight courses (see Table 1).

In all but one course, the assessments were scored on three writing dimensions - Mechanics and Style, Organization, and Development. The assessments were administered as part of a final exam or final course project, and consequently the vast majority of students who took the assessment were ones who successfully completed the course. Not surprisingly, student performance on these assessments was generally very positive - on average in excess of 80% of the students assessed scored at a satisfactory or better level. A secondary study in which an interdisciplinary group of faculty scored a random sample of student writing from the assessments indicated that despite these numbers, there was still a need to have a set of clearly articulated Collegewide standards and expectations for satisfactory writing. As a result a number of important initiatives to improve student writing have occurred or are currently underway, including:

- the development of a set of interdisciplinary, Collegewide standards for writing

- the development of Collegewide expectations for satisfactory writing in the form of a rubric that faculty will use when assessing student work
- a Writing in the Discipline (WID) movement that is engaging and educating the College community, and faculty in particular, about the importance of incorporating writing in courses within all disciplines

In addition, individual disciplines generated recommendations tied to their own assessment experience and results. In general, these recommendations focused on the need to improve intra-discipline communication across the three campuses, and reconsideration of how writing effectively might best be reflected in courses.

The College also assessed students' ability to write effectively using two different indirect measures. Results from the 2006 Community College Survey of Student Engagement (CCSSE) showed that nearly 64% of the respondents stated their attendance at Montgomery College contributed either "quite a bit" or "very much" to their knowledge, skills, and personal development with regard to communicating in writing, compared to just over 53% of respondents nationally.

The College also administered its own survey in ten general education courses over a two-year period in which students were asked the degree to which course materials and resources had helped them improve their communication skills. In general, the results were encouraging, in some courses they were not as positive as faculty had hoped, and consequently a number of disciplines are engaged in the process of updating their course materials.

A direct assessment of students' ability to communicate orally was administered in 55 (out of 67) sections of SP 108 - Introduction to Human Communication in spring 2006. The results of the assessment, which was scored on four dimensions of oral communication - content and organization, delivery, language, and presentation, were highly positive, with more than 90% of the students scoring at a satisfactory or better level on each dimension. As a follow up to the assessment, Speech faculty have decided to:

- to standardize core learning outcomes for this course across all campuses
- develop more effective methods to mentor adjunct faculty
- review how to better incorporate the general education competencies into the course.

B. Information Literacy

In fall 2005, a direct assessment of students' ability with regard to information literacy was administered in 194 sections (out of 218) in 6 courses (see Table 2):

Students taking the information literacy assessments were scored on their ability to identify sources, make effective use of these sources, and correctly document these sources. In general, results of these assessments were highly positive and the resulting recommendations from participating disciplines focused on rewriting some course outcomes, and reconsideration of how the general education competencies should be reflected in the course.

C. Scientific and Quantitative Reasoning

In fall 2006, a direct assessment of students' ability to reason scientifically and quantitatively was administered in 69 sections (out of 78) of five courses (see Table 3).

In general, results on the assessments were positive. However, since the assessments were administered as part of final exams in December, 2006 and results were not made available until the spring 2007 semester, discipline faculty have not yet filed recommendations stemming from the assessments.

D. Technological Competency

In fall 2006, a direct assessment of students' technological abilities were administered in 49 sections (out of 56) in four courses (see Table 4).

In three of the four courses results on the assessments were very positive. Since the assessments were administered as part of final exams in December, 2006 and results were not made available until the spring 2007 semester, discipline faculty responsible for all four of these courses have not yet filed recommendations.

E. Critical Analysis and Reasoning

Students' ability to perform critical analysis and reasoning will not be assessed until the fall 2007 semester. This direct assessment will be administered to students enrolled in an estimated 163 sections in eight general education courses. Results of the assessment will be available in spring 2008.

The College did assess students' critical thinking and problem solving abilities using two indirect measures. Results on four items in the 2006 CCSSE showed that a higher percentage of Montgomery College students felt that their coursework placed a significant emphasis on the ability to think critically and problem solve than did students nationally. Additionally, a survey developed by the College was administered in ten general education courses over a two-year period. In all but two of the courses a high percentage of respondents indicated that course materials and resources were significant in helping them to improve their critical thinking and problem solving skills.

IV. General Observations and Recommendations

A number of important observations and recommendations have emanated from the program of comprehensive Collegewide assessment of general education competencies that began in fall 2005. These include,

- general education courses are now required to align selected learning outcomes with general education competencies
- Collegewide, interdisciplinary focus groups will be created whose responsibility will be to educate faculty about the general education competencies and promote their inclusion in general education courses. Most importantly, these focus groups will be charged with developing Collegewide standards and expectations for each competency

- with each round of general education assessment, a secondary study will be conducted in which a random sample of student work will be collected and evaluated by an independent, interdisciplinary group of faculty.
- Based on written communication assessment results, guidelines for College-level writing have been adopted and the College has supported a faculty led Writing Across the Discipline initiatives.

MHEC Staff Review of 2007 Student Learning Outcomes Assessment Report

Montgomery College has developed a system to directly assess the five core competencies of its general education program. Assessment of all five competencies is performed at the course level on a two-year cycle. Assessments in the area of written communications included, as just one example, research papers (English 102), essay questions (Criminal Justice 110), and article reviews (Biology 101). Results of these assessments led to a campus-wide “Writing Reliability Study” and the articulation of college-wide writing standards.

Results of the assessment of scientific and quantitative reasoning and technology competency are being currently compiled; faculty will submit recommendations based on the analyses during the Fall 2007 term.

Results concerning critical thinking from the institution-wide 2006 Community College Survey of Student Engagement (CCSSE) were also included in the report.

Prince George's Community College

Institution's Executive Summary of 2007 Learning Outcomes Assessment Report

Prince George's Community College has been actively engaged in the assessment of student learning since 1999. In both its 2001-2005 and its 2006-2010 Strategic Plans, student learning is prominent; identified as "Quality" and "Student Success" in the former and "Lifelong Success for All Students" in the latter. In 2005, The Middle States Evaluation Team reported that Prince George's Community College's assessment plan met the criteria for Standard 12, "General Education," and Standard 14, "Assessment of Student Learning" as required in the *Characteristics of Excellence in Higher Education*. The college's nine core education outcomes reflect the four competencies identified by Middle States in the *Characteristics of Excellence in Higher Education*.

In 1999, the college began assessing courses to determine if students were learning the outcomes specified in the master syllabus of each course. In 2002, the college began administering the Academic Profile to assess general education, and in 2004, CCSSE was added to the college's assessment program. In addition to the assessments undertaken by the college, students in allied health, EMT, and nursing must pass licensure examinations to work in their fields. The pass rates are important to the students and to the college.

On a four-point scale (with four the highest score), the college received relatively high scores, 3.03 in 2004 and 2.99 in 2006 on students' response to the CCSSE item "Acquiring a broad general education." At the same time, the college is dissatisfied with its mediocre, somewhat stagnant Academic Profile general education score, which has remained essentially constant since 2002.

The college assesses all four of the Middle States' competencies, Written and Oral Communication, Scientific and Quantitative Reasoning, Critical Analysis and Reasoning, and Technological Competency. Assessments are conducted at the institutional, course, and program levels. The college uses both direct and indirect assessment means. In addition to the Academic Profile, CCSSE, and licensing examinations, it uses an array of internal assessment means including writing samples, course writing assignments, course assessments, course-embedded tests, essay assessments, final course grades, pre and post tests, and a capstone course.

In responding to the five questions for each of the competencies, the college defined the competency, which answered question one, and then used a table for each competency to answer the other four questions. Each competency table (Table A. Written and Oral Communication, Table B. Scientific and Quantitative Reasoning, Table C. Critical Analysis and Reasoning, and Table D. Technological Competency) shows the means of assessment, whether the assessment is direct or indirect, the level at which the assessment occurs, the availability of the results, and the use of the results.

Summaries are included to determine how the results are used to improve students' proficiency in each of the four competencies. For example: The use of the "C" standard paper rubric in the English Department has modestly improved student writing. The Office of

Academic Affairs is enforcing a more structured program of study that requires students to start math courses early in their programs to improve their quantitative reasoning ability. The Philosophy Department has revised the outcomes for Philosophy 101 to require more critical analysis and reasoning and the CIS Department requires a capstone course in its CIS A.A.S. degree program.

In total, as a learning-centered institution, Prince George's Community College is committed to improving student learning and is using assessment as a tool to identify weaknesses in its general education core and complementary courses so they can be modified as necessary and reassessed. The college recognizes that improving students' college-level proficiency is an ongoing task that requires continuous assessment and revision.

MHEC Staff Review of 2007 Student Learning Outcomes Assessment Report

Prince George's Community College recently met (2005) the Middle States' standards for "General Education" and "Assessment of Student Learning." In its current 2006-2010 strategic plan, the college has articulated "assessable outcomes" as a central focus.

All four general education competencies are defined, and examples of the measures and results of assessments are provided. At the institutional level, for example, PGCC administers the Academic Profile and Community College Survey of Student Engagement (CCSSE). Rubric-scored writing assignments and tests are other examples of assessment measures.

Assessments have led to enhancements in teaching and learning at PGCC. For instance, somewhat weak scores in critical thinking on the Academic Profile exam resulted in professional development for the faculty. Instructors have been required to revise syllabi "to include measurable critical thinking outcomes."

Wor Wic Community College

Institution's Executive Summary of 2007 Learning Outcomes Assessment Report

Standard 14 of the Middle States' *Characteristics of Higher Education* states that "assessment of student learning demonstrates that the institution's students have knowledge, skills and competencies consistent with institutional goals and that students at graduation have achieved appropriate higher education goals." Wor-Wic Community College documents student learning in four competencies identified in Standard 12 of the Middle States' accreditation process: written and oral communication, scientific and quantitative reasoning, critical analysis and reasoning, and technological competency.

At the institutional level, three collegewide assessment tools are used to evaluate competency of the general education objectives: General Education Assessment (GEA), American College Testing Collegiate Assessment of Academic Proficiency (ACT CAAP), and the General Education documentation of general education objectives (GEO) on syllabi. The assessment tools and the data for the four competencies are analyzed in this report.

In FY '07, the college updated its institutional assessment plan that includes procedures for assessing the effectiveness of the institution as a whole and of all its academic programs and support services. The updated plan describes how student learning outcomes at the course and program levels and general education at the institution level are being assessed using direct methods of assessment. As a result of this initiative, significant improvements were made in the assessment of student learning outcomes at the course and program levels by directly linking course and program objectives to assessment instruments, by using agreed upon rubrics to assess student responses, by using common, comprehensive final examinations in single and multi-section courses and by developing procedures for directly assessing student learning at the program level, through capstone courses, related field experiences, practical, projects, portfolios and/or other measures.

Beginning July 2007, each of the academic programs will undergo a comprehensive program review on a five-year cycle and their effectiveness will be monitored annually based on selected key indicators. The academic program review includes the following: 1) review and analysis of five-year program data that includes trends in applications, enrollments, and program completers, as well as profiles of program completers and non-completers; 2) examination of the alignment of general education learning objectives and outcomes in each program; 3) analysis of procedures used in assessing student learning, including, the end-of-course assessment and how they are aligned with course objectives; 4) analysis of assessment practices in the classroom; and 5) conclusions and recommendations for improvements.

GEA - In order to measure whether prospective graduating students have met six of the eight general education objectives, the college developed the general education assessment (GEA) process which has been administered since the culmination of the pilot test in the spring of 1992. Before graduation, students are required to register for one of seven test sessions. During the examination, students are provided an article of general interest and asked to respond to three

questions using the article as a reference. Upon completion of the written portion, students are required to defend their argument in an oral presentation to a team of three faculty members. Faculty use holistic scoring criteria to score students as highly acceptable (3), acceptable (2), unacceptable (1), or did not attempt (0) for each objective. Student scores are tabulated using the assessment from three faculty, with an existing range from 0 (lowest score) to 9 (highest score) for each objective.

ACT CAAP – ACT CAAP, a national standardized exam, is administered every five years for purposes of testing the validity and reliability of the college GEA instrument. The ACT CAAP measures performance on the first five of eight college general education objectives and allows the faculty to see how the students score nationally and if their scores are similar to those obtained with the GEA. The most recent time this exam was administered was in FY '03. Starting in FY '08, the GEA tool will be eliminated and replaced by the ACT CAAP.

GEO - Beginning in the fall 2002 semester and updated in spring 2007, the general education division department heads initiated a project that reviewed and documented the satisfaction of the college's eight general education objectives within each of their academic programs (chemical dependency counseling, early childhood education, emergency medical services, general studies, science transfer, teacher education – elementary, and teacher education – secondary). All occupational education division programs will complete the documentation of general education learning outcomes during the new academic program review, which begins July, 2007.

WRITTEN AND ORAL COMMUNICATION

Definition: Wor-Wic Community College has eight general education objectives and the first of these objectives is to broaden and deepen the student's education by helping the student develop the ability to "express ideas effectively through oral and written communication." Oral communication is defined at Wor-Wic having the ability to give a presentation that: 1) Is clear, interesting and has a stirring introduction; 2) Has an effective progression of ideas in body/development; 3) Has a conclusion that is convincing and encourages future interest in the topic; and 4) Has presentation style that is energetic and effective.

Written communication is defined as having the ability to develop an essay that: 1) Has an engaging opening and skillful closing; 2) Clearly relates to the topic and has a single focus; 3) Is well organized and progresses logically from beginning to end; 4) Is well developed and imparts a feeling of wholeness and unusual clarity; 5) Has transitions that are artful and has a variety of cohesive devices; 6) Takes composition risks that are highly effective; 7) Contains few if any errors; and 8) Contains few, if any sentence construction errors, and is syntactical and verbally sophisticated because of an effective variety of sentence and/or rhetorical modes.

Measurement and Level: To assess written and oral communication, students must demonstrate competency at the course level and are tested at the institutional level. At the course level, all associate degree students must complete the Fundamentals of English I (ENG 101) course and Fundamentals of English II (ENG 151) and most students must complete the Fundamentals of Oral Communication (SPH 101) course. Wor-Wic also has an across-the-curriculum requirement that specifies that every course syllabus includes a written assignment.

In the above-mentioned courses, the assessment has direct measures. The direct measures of this competency used most frequently are course-embedded assessments that are scored using a rubric (all English and education courses), score gains on entry and exit exams, comprehensive final examination scores, and, for ENG 101, grading in compliance with the statewide “C” standard. In most other courses, the indirect measure of assessment used is grades on assignments for which there is no rubric grades on assignments, passing grades in English and speech courses, student evaluation of progress made in course related to the objective and student satisfaction with learning.

Results: The data results of the institutional GEA and standardized ACT CAAP are available below. The GEA results for writing and oral communication for FY '04-'06 can only be analyzed through a comparison of the scores in the other areas. The scores indicate that the two highest areas of competency were in oral and written communication. This finding is supported by the ACT CAAP scores. The ACT CAAP writing skills mean scaled score data from FY '03 show that Wor-Wic students' scores compared favorably to the national students: Wor-Wic = 62.8; national = 62.5. As with the GEA scores, the Wor-Wic ACT CAAP writing skills scores were one of the highest scores of the five competencies tested. Course-embedded assessments that are scored using a rubric and the comprehensive final exams score data will be available and used for the first time in FY '08.

With the use of the Maryland “C” grading standard and the results of the assessment tools, Wor-Wic students graduating with an associate's degree have demonstrated that they have achieved college level proficiency in writing and oral communication.

Data Use: Though the assessment activities related to writing show college level competency in this area, faculty workshops were offered last year to assist faculty in expanding their knowledge about incorporating writing assignments into their courses and in grading the assignments using rubrics. This upcoming year, in the five-year academic program review, the department heads and faculty will be using the data collected over the past five years pertaining to this competency to evaluate student learning and to adjust teaching if necessary.

SCIENTIFIC AND QUANTITATIVE REASONING

Definition: Two of the general education objectives at Wor-Wic address Scientific and Quantitative Reasoning. These Wor-Wic general education objectives are scientific reasoning and mathematical reasoning. Scientific reasoning is defined as the having the ability to: 1) Isolate the problem from the mass of given material; 2) Check the main hypothesis with relevant laws, facts, operations, or experiments; 3) Design experimentation and collect appropriate data; 4) Recognize or draw generalizations from the data known or given; 5) Distinguish the relevant from the irrelevant; and 6) Make recommendations based on the summarized data. Mathematic reasoning is defined as the ability to: 1) Critique of use of mathematics in research; 2) Incorporate a description of mathematical methods used; 3) Analyze the method based on its merits and defects; and 4) Apply mathematical models to the solution of problems.

Measurement and Level: To assess scientific and mathematical reasoning, students must demonstrate competency at the course level and are tested at the institutional level. Aall

associate degree students must complete at least one college-level mathematics, social science course, and science course. For these courses, the direct measures of competency most commonly used are course-embedded assessments that are scored using a rubric and the scores on the comprehensive final exams. Indirect measures are grades on assignments, passing grades in mathematics, social science and science courses, student evaluation of progress made in a course related to the objectives and student satisfaction with learning.

Results: The results of the institutional assessments (GEA and ACT CAAP) indicate that Wor-Wic students' mathematical reasoning and scientific reasoning scores were lower than all other assessed competencies and were lower than the national students' mean scores. Course-embedded assessments that are scored using a rubric and the comprehensive final exams score data will be available and used for the first time in FY '08.

Data Use: In FY '05, the college scheduled training for faculty in incorporating mathematics and scientific reasoning across the curriculum in order to improve the student's ability to apply these principles. Also, to insure that the assessment tool is appropriate for measuring these objectives, the GEA committee selected for FY '06 an article with a mathematics and science emphasis and provided more direction in the instructions for these objectives. Though faculty have been provided with the information about how to incorporate mathematics into their syllabi, few faculty have done so, as reflected by the number of "GEO 4" codes on their syllabi. An increase in the application of scientific and mathematic reasoning is needed in almost all programs. However, when comparing the FY '06 GEA scores of students who were required to take higher level (algebra II based) mathematics courses as part of their program to students that were required to take any mathematics course for their program (which was usually statistics, requiring algebra I), there was an inverse correlation, 4.9 and 5.17 respectively. Replacing the GEA with the ACT CAAP may provide the College with more reliable, valid mathematics data.

CRITICAL ANALYSIS AND THINKING

Definition: Wor-Wic Community College has eight general education objectives of which one states the student will "think critically and reason logically." Critical thinking is defined as having the ability to: 1) Perform at the analysis, synthesis, or evaluation levels; 2) Identify and rank available options; 3) Look for alternatives in an orderly and open-minded manner; 4) Evaluate the credibility of sources; 5) Demonstrate inductive or deductive reasoning in addressing the problem; 6) Draw conclusions or hypothesize from interpreting the intended meaning of the author; and 7) Weigh the evidence in evaluation the alternatives and decide on a course of thought or problem-solving direction.

Measurement and Level: Student competency in critical analysis and thinking is measured at both the course and institutional levels. At the course level, a cross section of courses was sampled to determine if critical thinking and logical reasoning is a competency students had obtained. In addition, each department utilizes a comprehensive examination in each course to measure the skills the students have acquired throughout the course. The examinations test the students' knowledge, comprehension, application, analysis, synthesis, and evaluation skills. At the institutional level, critical analysis and thinking is measured through the college's general education assessment (GEA) and the ACT CAAP.

Results: The results of the institutional GEA indicate that critical analysis and thinking skills continue to be stressed in classroom activities. The national scores from the ACT CAAP compare favorably and support the GEA scores.

Data Use: The information from the assessment activities indicates that students are scoring well in the area of critical thinking compared to the national average. Even with these results there continues to be room for improvement. Faculty review their syllabi to ensure that they include activities and assignments which will strengthen the students ability to perform critical analysis and thinking. Course and program objectives are reviewed regularly to ensure they are aligned.

TECHNOLOGICAL COMPETENCY

Definition: One of Wor-Wic Community College's eight general education objectives states that the student will "Demonstrate the appropriate use of technology to obtain and communicate information". The student is challenged to use, understand and access the technology currently available.

Measurement and Level: Students enrolled in most associate degree programs are required to take Introduction to Information Systems (CMP 101) which "introduces the fundamentals of information processing and computer literacy." This course provides students with a practical experience in navigating electronic documents, the using and evaluating of web sites, performing keyboard search strategies for the Internet and electronic help guides, and exploring copyright issues. Students enrolled in programs where CMP 101 is not required are provided similar skills in their programs. One example is in nursing. Students are trained in the use of RN Learning software and acquire competencies through their clinical experiences in health care facilities. Clinical experiences provide the students with the skills to operate a variety of equipment and technology. In addition, students involved in their skills laboratory experience are exposed to and required to use bedside laptop computers to input and update patient information as would occur in the workplace.

Results: All courses offered at Wor-Wic Community College include at least one electronic assignment for students. These assignments include research and gathering of information. An increasing number of courses have been enhanced by faculty to include a WebCT component. All classrooms include technology that is used by the faculty and the students. This technology includes a computer, projection system, document camera, and VCR/TV/DVD capability.

Data Use: Sixty-one percent of the students completing the Introduction to Information systems improved their pretest score by more than 40% and 29% improved their pretest score by more than 100%. These improvements are a result of curriculum based changes to CMP 101. These changes included more clearly defined web-based projects, more structured Internet activities, and an expansion in the discussion of copyrights. In addition, this course is supported by the use of upgraded technology, both hardware and software, and has been closely aligned to the college's general education objectives. Wor-Wic Community College is dedicated to providing students with the technological competence they will be required to possess in the work place.

By providing the foundation and reinforcing this skill throughout their entire college career, the college is developing students comfort in using technology and the information it makes available.

MHEC Staff Review of 2007 Student Learning Outcomes Assessment Report

According to its report, **Wor Wic Community College** recently updated its institutional assessment plan. The current plan “describes how student learning outcomes at the course and program levels and general education at the institution level are being assessed using direct methods of assessment.”

Since 1992, the school has used its own general education assessment (GEA) to measure whether graduating students have met six of WWCC’s eight general education objectives. This measure, however, will be eliminated in FY 2008.

Definitions are provided for all four of the general education competencies. Assessment measures (and results) are available for written and oral communication, scientific and quantitative reasoning, and critical analysis and reasoning.

Use of assessment results is discussed. In particular, workshops have been offered to faculty to assist in the implementation of writing assignments, as well as quantitative and scientific reasoning, across the curriculum. Faculty have also reviewed syllabi to ensure the teaching of critical analysis and reasoning.

**Section IV. Executive Summaries and Commission Evaluation:
Public Four Year Colleges and Universities**

Bowie State University

Institution's Executive Summary of 2007 Learning Outcomes Assessment Report

This report is presented in fulfillment of the reporting requirement by the Maryland Higher Education Commission (MHEC) on General Education. It provides information on the progress made by Bowie State University relative to the assessment of competencies identified in the Middle States' *Characteristics of Excellence Standard 12: Written and Oral Communication, Scientific and Quantitative Reasoning, Critical Analysis and Reasoning, Technological Competency, and Information Literacy*.

The institution's aim is the assessment of these five competencies within the context of our General Education curriculum in order to determine the broader contribution to the process of continuous improvement of student learning and achievement. Consequently, the overall global goal of the General Education program at Bowie State University is to provide all students with a common core of academic course work as a foundation for more specialized study in the major.

Significant progress has been made with regard to the assessment of written and oral communication. Additionally, progress has been made in the assessment of critical analysis and reasoning, and technological competency. Limited progress has been made in information literacy, scientific and quantitative reasoning.

Bowie State began reviewing the General Education program outcomes assessment in 2004-2005. Continuation of the General Education program outcomes assessment initiative, along with refinement of assessment strategies, has proceeded. That process includes a review of the following elements:

Articulated students outcomes via surveys and focus groups
The Middle States Commission standard 12
General Education courses with embedded competencies
All General Education Course syllabi
Processes for evaluating the General Education program at peer institutions
Processes for student outcomes data collection and analysis

Multiple measures are conducted for direct and indirect (i.e., course examinations, seminar papers, term projects, externally administered standardized examinations, presentations, and surveys) assessment of student learning. In addition, the General Education program clearly delineates competencies that students are expected to achieve through their matriculation in the various academic courses.

Outcomes assessment data presented in this report are primarily the result of course embedded assessments. In addition, entry level placement examinations (ACUPLACER), the Pre-Professional Skills Assessment (PRAXIS I), and the English Proficiency Examination (EPE) are other important assessment measures that are used as outcome measures of student learning. Currently, the General Education program does not use a single external standardized

examination for all students at all phases as a uniform measure of outcomes of the General Education program. The aforementioned tests are used for comparative assessments along with institution based embedded assessments.

Written and Oral Communication

Bowie State's definition of student competence in written and oral communication is based on two levels of assessment. The first level of assessment is course embedded assessment of written papers and presentations to faculty in the Department of English and Modern Languages and Department of Communications. Additionally, assessment of student competence is conducted through administration of the English Proficiency Examination (all students) and PRAXIS I – Reading and Writing examination (education majors only).

Scientific and Quantitative Reasoning

Bowie State's definition of student competence in scientific and quantitative reasoning is demonstrated skills in the identification and application of scientific principles which promote a greater comprehension of the universe. Furthermore, students should be able to demonstrate skills in the assignment of numbers, computation, analysis and interpretation of data, formulation of database inferences and conclusions concerning the natural world.

Critical Analysis and Reasoning

Bowie State's definition of student competence in critical analysis and reasoning is demonstrated through the assessment of skills in writing and speaking in a logical sequence of thought, objective formulation of solutions to problems through the consideration of all plausible alternatives in order to yield sound informed decisions.

Technological Competency

Bowie State defines student competence in technological literacy as a demonstrated skill in the utilization of technological hardware and software including basic operation of personal computers, word processing, spreadsheet development, PowerPoint development, database applications, and navigation of the internet.

Information Literacy

Bowie State defines student competence in information literacy as demonstrated abilities to identify, to retrieve, to evaluate and to use electronic and traditional forms of information effectively. Demonstration of this competence is conducted in the context of social, legal and economic related information issues. Acquisition of information literacy skills will permit students to engage in activities that promote life long learning.

MHEC Staff Review of 2007 Student Learning Outcomes Assessment Report

Bowie State University began reviewing the General Education program outcomes assessment in 2004-05 and, according to the report, "...continuation of the General Education program outcomes assessment initiative, along with refinement of assessment strategies, has proceeded." All four competencies are defined. Assessment activities are primarily course-embedded and some results are presented. At the program level, the Pre-Professional Skills Assessment (PRAXIS I) is given to education majors. In addition, an English Proficiency Exam (EPE) is given to all students—a passing score on the EPE is required for graduation.

Some course-embedded test success rates were reported, as well as the results of the PRAXIS I for education majors. Referring to the use of results of the written and oral communication assessments, the report states the "...the results of all assessment are being used for continuous improvement. Presentation of investigation results will be presented in the next SLOAR report."

Results of the PRAXIS I mathematics exams has resulted in the redesign of beginning math courses and the hiring of a support person. Results of the assessment of technological competency has led to unspecified improvement of computer courses.

Coppin State University

Institution's Executive Summary of 2007 Learning Outcomes Assessment Report

For the purpose of continued institutional renewal, faculty, staff, and administrators at Coppin State University have committed to a culture of planning, research, assessment and accountability. In general, the University continues to engage its internal and external constituencies in study, planning, assessment, and development so that it will be well positioned to carry out its very visible urban mission. An on-going effort has been made to measure overall effectiveness towards the achievement of the University's mission and goals. With respect to assessment, Coppin relies on a broad range of means for measuring, evaluating, and assessing educational outcomes. In order to promote planning and assessment, Coppin relies on the Office of Planning and Accreditation and the Center for Institutional Assessment to facilitate its strategic planning, research, and assessment efforts. Consequently, Coppin State University is committed to maintaining a working relationship with every student, faculty, and staff member; thereby, assuring every voice is heard.

The goal of the University assessment process is to encourage institutional self-awareness, self-understanding, and genuine self-improvement. In general, CSU developed an aggressive campaign to assess student learning outcomes through the institutionalization of the Center for Institutional Assessment, Faculty Assessment Committee, and Assessment Steering Committee. Importantly, during the academic year 2006-07, faculty professional development included training sponsored by The Middle States, opening sessions sponsored by The Office of the Provost with assessment consultants, and assessment technical assistance. Uniquely to CSU, a Director of Assessment was hired. The Director works closely with faculty and has responsibilities for the oversight of the Center for Institutional Assessment. The Center is a centralized University resource designed to inform planning and policy decisions in a wide range of academic and administrative areas. During academic year 2005-2006, the Center focused its efforts on training and development, survey development, assessment, educational research around the use of technology in teaching, and strategic planning.

In conjunction with the Office of Planning and Accreditation, the Center for Institutional Assessment has responsibilities for coordinating assessment efforts at Coppin. The Office of Planning and Accreditation has unique responsibilities in establishing an institutional culture of assessment with the support of University constituencies. Additionally, the Dean of the School of Arts and Sciences champions efforts to improve student learning assessment for general education courses with application to non-general education courses. The School has developed a collective effort at addressing course level performance which included the development of direct and indirect measures.

The assessment campaign is mission driven and dynamic as the University continues to evolve into a model urban comprehensive liberal arts institution. New assessment activities have been initiated. The methods used for data collection, analysis and reporting continue to improve, capitalizing on the institution's information technology infrastructure. These activities have enabled the University to improve academic programs through timely and complete student learning outcomes assessment at the institutional, program and course-levels.

In general, the campaign has increased institutional effectiveness and efficiency by the following examples:

- An aggressive campaign to assess student learning outcomes has been launched to ensure that proper interventions are installed to improve general education requirements and course level performance. For example, English has been cited as having courses that need further redesign to address unprepared student needs. Specifically, actions are underway to assess ACCUPLACER and to address the need for a lower level English course for students who cannot successfully pass EN 101.
- During spring 2006, the University secured the National Study for Student Engagement to assess the level of student engagement on campus. What follows are the results for the indicator 11F, Analyzing quantitative problems.

Based on NSSE 2006 Administration, first-year students tended to outperform their peers on this indicator with an overall score of 2.92, while the NSSE cohort average was 2.86.

Based on NSSE 2006 Administration, seniors tended to outperform their peers on this indicator with an overall score of 3.26, while the NSSE cohort average was 3.02.

- The success rates for Arts & Humanities, Social & Behavioral, Natural Sciences, and Interdisciplinary & Emerging Issues, reported rates above 70 percent for the spring and fall terms during academic year 2003-2004 to academic year 2005-2006.
- During spring terms 2005 and 2006 for English 495, Senior Seminar, student pass rates for the following assessment instruments were: portfolio assessment, 86 percent; comprehensive exam, 82 percent; and the departmental assessment, 57 percent whereas the EN 101 course level assessment data weren't easily available except for one term which was incomplete.
- Using MNSC 150, Technology Fluency, three courses were assessed during fall 2006 and spring 2007. Each of the courses used the Skillset Assessment Manager (Skillset Assessment Manager (SAM)) and assessed competencies for Microsoft Office. The average competency score in Microsoft Excel was 74 percent, while the average score for PowerPoint was 85 percent. Importantly, the average score for proficiency in Microsoft Word was 94 percent using these three courses.
- The CSU assessment process is inclusive of the following data components: a comprehensive survey research, student perception of teaching quality, skill acquisition, learning outcomes, technical infrastructure, assessment, specialized studies, program level data, and institutional learning.
- Math faculty have crafted a course redesign for the DVMT with accommodations for more lab and better assessment measures. The department has also committed the summer to working on redesign initiatives and goals for a pilot to begin in fall 2007.

- While reviewing the general education requirements in Table 4, the oral and written communication competency illustrated that 88% of all general education courses contained this competency. Additionally, 42% of all general education courses contained scientific and quantitative reasoning with 36% of all courses reflecting technological competencies. Lastly, critical analysis and reasoning competencies were found in 96% of all courses with information literacy indicated in 68% of courses reviewed.

During the last three years, CSU has invested in technical infrastructure to develop analytical systems to provide indirect measures for the purpose of assessment. Due to the technological focus at CSU, infrastructure has been developed to warehouse institutional effectiveness indicators. The institution currently uses PeopleSoft and has developed specialized Assessment modules using I-Strategy for purposes of warehousing critical information. This data are then used in reporting to assess quality improvement by unit. Using the unit representatives, data are interpreted into useful information and then used in a continuous improvement effort. In preparation for the evaluation, and in an effort to address emerging new performance standards, departments designed performance assessment systems that permits the unit to review the performance of students, faculty, and programs in a systemic manner. This performance assessment system prescribes a data collection process that can be used to make informed decisions concerning the improvement of services and programs. The recently designed performance assessment system permits the department to review the performance of students, faculty, programs, and offices, in a more systematic manner. The system prescribes a data collection process that can be used to inform the decision-making process of the specific program and the division, to assure continuous quality improvement. Departments have identified categories of goals, which have been aligned with the conceptual frameworks and strategic plan. For example, some academic categories include: 1) the quality of instructional programs, 2) diversity of faculty and students, 3) adequacy of resources, 4) unit productivity, 5) collaborative initiatives and partnerships, and 6) student retention.

In specialized areas, the University has many successes. The School of Education was reaccredited by the National Council for the Accreditation of Teacher Education programs and the Maryland State Department of Education during spring 2006 while the School of Nursing and the Department of Social Work are scheduled for reviews in fall 2007 and spring 2008, respectively. Importantly, the institution is preparing for its Middle States Commission on Higher Education review for reaffirmation of accreditation in academic year 2007-2008. The University-wide Academic Program Review Committee (APRC) was re-activated in 2001 to facilitate internal academic program reviews. Its charge was to review all academic programs at the institution during a seven-year cycle. The Committee comprised of faculty, chairpersons, and administrative representatives of the University at large, created a review process that includes the administration of a programmatic self-study. The instruments used to evaluate the self-study insure compliance with Middle States Commission on Higher Education, National Council for the Accreditation of Teacher Education, National League for Nursing, Council on Social Work Education, and Council on Rehabilitation Education. In additionally the APRC serves to provide ongoing assessment of all programs. This process is used for those programs where specialized accrediting agencies are applicable, as well as those where no such specialized accreditation is in effect to date, i.e. History, Geography, and Global Studies, Social Sciences,

Criminal Justice. The APRC has set a seven-year schedule to review all academic programs internally as part of its process to achieve continuous quality improvement.

In summary, the University has adopted an institutional assessment model that incorporates assessing student learning outcomes at the institution, program, and course levels. Both the institutional and program levels are informed by the strategic plan which provides a useful blueprint for the future direction of Coppin State University. In addition, the University began its self-study process demonstrating the application of Middle States Commission on Higher Education *Characteristics of Excellence* using its Standards Seven, Institutional Effectiveness, and Standard Fourteen, Assessment of Student Learning as its guide. The Coppin assessment process answers two critical questions:

- How is institutional effectiveness assessed at CSU through the use of strategic goals and objectives?
- How are assessment data and results used to improve policy formation, budget and fiscal planning, curriculum and student development, and teaching and learning?

The ongoing assessment process at Coppin consists of data collected in nine categories. Finally, the assessment process at Coppin is anchored in the strategic goals of the institutional strategic plan, *Coppin State University in 2010: Nurturing Potential...Transforming Lives, A Strategic Plan*.

MHEC Staff Review of 2007 Student Learning Outcomes Assessment Report

Coppin State University has recently institutionalized many of its efforts addressing assessment. It established the Center for Institutional Assessment, a Faculty Assessment Committee, and an Assessment Steering Committee. A new hire—the Director of Assessment—runs the Center for Institutional Assessment.

Coppin has clearly defined all four general education competencies. Assessment measures and results are given for written and oral communication and scientific and quantitative reasoning. Efforts have been made to use assessments results to improve student learning. For example, low pass rates in ENGL 101 have led to an “aggressive campaign to assess student learning outcomes ... to ensure that proper interventions are installed to improve general education requirements and course level performance.”

Scores from the 2006 administration of the National Survey of Student Engagement (NSSE—an institutional, indirect measure) are also provided in the report. NSSE scores are reported for critical analysis and reasoning as well as for technological competency. Coppin does not indicate how these results have been used to enhance teaching and learning.

Frostburg State University

Institution's Executive Summary of 2007 Learning Outcomes Assessment Report

In Frostburg State University's 2004 Student Learning Outcomes Assessment Report, we described our efforts to effect fundamental change in our campus culture through a commitment to assessment, a process accurately outlined by Huba and Freed (2000):

The idea of focusing on learning rather than teaching requires that we re-think our role and the role of students in the learning process. To focus on learning rather than teaching, we must challenge our basic assumptions about how people learn and what the roles of a teacher should be. We must unlearn previously acquired teaching habits. We must grapple with fundamental questions about the roles of assessment and feedback in learning. We must change the culture we create in the courses we teach. In other words, we must experience a paradigm shift. (p. 3)

In this report, we outline our accomplishments thus far within such a paradigm shift as we re-conceptualize student learning through assessment of seven basic skills of general education. We also outline the challenges the University will face in the next three-year reporting cycle.

Update: The Undergraduate Education Initiative

When the 2004 SLOAR was submitted, FSU was on the cusp of implementing significant curricular reform under the auspices of the Undergraduate Education Initiative (UEI). Curricular change in response to the UEI is now well under way, with new interdisciplinary colloquia and studies in identity and difference now a required part of the University's general education program. Capstone experiences have been reviewed and approved for every major and will be required for every student entering FSU as of this coming fall (2007). This achievement is notable in its focus on assessment: capstone experiences are defined at FSU as a course, project, or presentation with variable credits that can be used as the locus for assessment of students' learning in his/her selected major.

The UEI also included a recommendation for the development of a campus-wide plan for student learning assessment. Created by an ad hoc faculty committee, the Student Learning Assessment Plan was approved by Faculty Senate in March 2006. Significant in the adoption of this plan is the incorporation of academic program review as a fundamental component of the student learning assessment cycle. The entire plan can be reviewed on-line at <http://www.frostburg.edu/academic/slassessment/basic.htm> (click on "SLA Plan").

The University's efforts in laying the groundwork for student learning assessment were recognized in its re-accreditation by the Middle States Commission on Higher Education. The Middle States visiting team stated in its report (April 2006) that "the campus has made considerable progress as noted by the following documents: *Undergraduate Institutional Learning Goals* (December 2003), *The Undergraduate Education Initiative* (September 2004), and the *Student Learning Assessment Plan* (February 2006). When fully implemented, these plans will provide significant internal tools for celebrating and improving student learning" (p. 17).

Laying the Foundation: Basic Skills of General Education

In our 2004 SLOAR report, we emphasized that “one of the University’s biggest challenges . . . is the development of definitions of college-level proficiency for each of the basic skills” (p. 2). We have since acted on the recommendations of six faculty committees who, during a two-year time period (February 2004-2006) devised guidelines, definitions, and benchmarks for basic skills in written communication, oral communication, scientific reasoning, quantitative reasoning, critical thinking, and information literacy (technology literacy had already been addressed in 2002-2003 in response to a Board of Regents directive mandating demonstration of basic skills in technology literacy as a requirement for graduation; results are included in this report). The full report from each committee may be viewed on-line: <http://www.frostburg.edu/academic/slassessment/basic.htm>. (click on “Basic Skills”).

Accomplishments: Basic Skills of General Education

This report outlines our achievements in developing and implementing assessments of six of the seven basic skills. Our primary locus of assessment for all basic skills except technology literacy is at the course level, primarily through the use of course-embedded grading rubrics. Table 1 provides an overview by skill, benchmark, and current level of attainment of the pilot assessments completed.

We have also completed the third year of a three-year cycle of administration of the National Survey of Student Engagement (NSEE). The NSEE is an indirect assessment and, as such, relies on students’ self-reporting. However, the 2006 administration showed improvement over the 2005 responses, at both the freshman and senior level, in students’ perceptions of their skills in concept analysis, synthesis of ideas, value judgment, and practical application of concepts to real-world situations, when compared to students at peer institutions.

Future Challenges in the Assessment of Basic Skills of General Education

As the above results indicate, Frostburg State University has completed a pilot round of assessments of basic skills. In the next three years, we will address several challenges as we move toward full implementation of student learning assessment.

Developing a “second generation” infrastructure to support the administration and evaluation of assessment initiatives. The “first generation” of student learning assessment at FSU focused on building a solid foundation: increasing campus awareness of institutional learning goals; introducing the language of assessment into FSU’s culture; gaining faculty consensus on definitions of basic skills and criteria for their evaluation; developing a student learning assessment plan; working with departments to create learning goals and assessment methods.

The “second generation” of assessment at FSU—a thoughtful, organized, systematic approach to assessment—demands a fully operational, comprehensive program, one that recognizes the amount of time and resources needed for both administration and faculty to administer, evaluate, and report on student learning assessment. For example, the assessments reported here represent the first broad-based effort to apply assessments across the curriculum, but the realities of staffing and the ongoing challenges of developing a legitimate faculty commitment have thus far

limited the extent to which assessment can be inculcated into the campus vision of student learning.

However, Dr. Jonathan Gibralter, FSU's new president, has announced that a new senior-level administrative position will be established this spring (2007), charged with both the responsibility and the authority to implement the "second generation" of student learning assessment at FSU.

Fully engaging faculty in assessment activities. To move forward with assessment, the faculty-based Student Learning Assessment Advisory Group has completed its first year. Its most immediate focus has been the development of a feasible program of faculty involvement in student learning assessment.

Making assessment part of the campus culture. This particular challenge embodies the concept of paradigm shift as outlined by Huba and Freed in the opening paragraphs of this executive summary. Ultimately, a successful assessment program must be "owned" by faculty who see higher education as an interrelated triad of teaching, learning, and assessment. Dr. Gibralter's plans to introduce a more transparent strategic planning process—one that will "more fully engage the broader campus community and . . . provide for transparency within the process" (Middle States, 2006, p. 7) will include the results of student learning assessment as key components of the decision-making processes related to planning and allocation of resources.

MHEC Staff Review of 2007 Student Learning Outcomes Assessment Report

Frostburg State University aims, to use its report's own words, "to effect fundamental change in our campus culture through a commitment to assessment."

Frostburg "has completed a pilot round of assessments of basic skills." Since its last report, the university has focused on course-embedded grading rubrics and the National Survey of Student Engagement (NSSE). The campus now plans to move forward with the "second generation" of student learning outcomes assessment.

All four general education competencies are defined; measures used for assessment, as well as results, are also presented. Several examples of measures and/or rubrics are provided in the report. For example, Frostburg uses a "Need for Cognition" scale as a pre/post-test for critical thinking. Rubrics are used to assess scientific and quantitative reasoning, as well as written and oral communication.

Frostburg has begun to put its assessments to work. One example cited in the report: based on low scores for "language" on recent rubric-scored essays in ENGL 101, instructors have decided to focus on grammar instruction during the next academic year. The adjunct supervisor will offer professional development to part-time instructors focusing on "strategies for teaching grammar and punctuation more effectively."

Salisbury University

Institution's Executive Summary of 2007 Learning Outcomes Assessment Report

The General Education core at Salisbury University continues to transition from a menu-driven, course-based model to an assessment-driven, competency-based program of general learning. This process was initiated in 1997 with the creation of a General Education Task Force established to review and modernize the general education program. After three years of intense, focused effort and campus-wide engagement, the SU faculty ratified the *Student Learning Goals* (Appendix A) that currently define the University's general education learning principles, skills, knowledge, and dispositions. Additionally, the Task Force recommended the development and implementation of a continuous assessment process emphasizing course-embedded assessments to validate and improve student learning. This process would simultaneously provide ongoing feedback to faculty curriculum committees in order to enhance the core curriculum and the general education competencies of SU students. However, after the ratification of the *Student Learning Goals* in August 2000, the effort to transform them into a comprehensive, competency-based, assessment-driven, general education curriculum stalled temporarily.

In May 2001 and in consultation with the Provost, the SU Faculty Senate formed the ad hoc University Academic Assessment Committee (UAAC) and charged it (Appendix B), among other directives, to "articulate a coherent plan for ongoing assessment of the general education curriculum." Recognizing that the current general education curriculum remained course- not competency-based, the faculty-driven UAAC focused its initial efforts around the implementation of a model for student learning outcomes assessment at the academic program level.

The UAAC embraced many of the assessment concepts recommended by the General Education Task Force and subsequently developed a plan for outcomes assessment that is structured both to improve learning and to address the Middle States accreditation standards. The plan identifies multi-year, comprehensive, staged assessment implementation strategies that outline program-level student learning outcomes assessments across all academic units by spring 2006—a date that corresponded with the University's decennial review with Middle States. Since the plan is comprehensive, it also prescribes a timetable for the assessment of general education competencies using multiple means, including both standardized and course-embedded methods.

Additionally, in 2002, a Special Assistant to the Provost for General Education was appointed to engage the campus in dialogue regarding the implementation of the Student Learning Goals. In 2005, this position was modified to Special Assistant to the Provost with a focused goal: at the institutional level, advance the assessment of general education competencies throughout the curriculum.

Currently, the various assessment committees, both institutional- and school-based, as well as many of the individual academic programs, assess multiple programmatic goals, including the core general education competencies identified by the Middle States Association: written and oral communication, scientific and quantitative reasoning, critical analysis and reasoning, and technological competency. The majority of the University's academic programs have embedded these four core competencies as well as other general education skills and dispositions alongside

discipline-specific student learning outcomes. However, each discipline has different standards of performance in each of these competencies resulting in significant variability in the skills definitions, acquisition, and expected evidence across disciplines. As a result, the University has begun to assess the general education core through alternate means.

In 2005, Salisbury University used ETS's Academic Profile, since renamed the Measure of Academic Proficiency and Progress (MAPP) test, to assess the general education competencies of a sample of juniors and seniors. These standardized tests measure college-level reading, math, writing, and critical thinking skills, providing results in both criterion- and norm-referenced formats. Individual data are aggregated at the institutional level, normed, and compared against national peers. Through embedded inquiry within the context of the humanities, social sciences, and the natural sciences, the data also provide a norm-referenced measure of scientific reasoning.

However, during the testing process, SU struggled to generate a high level of interest in the MAPP tests—a common challenge associated with any assessment activity that is external to the curriculum and/or course. As a result and despite several gainful incentives to increase participation, the University had difficulty attracting a representative sample of juniors and seniors who were willing to perform at their highest level during a voluntary two-hour standardized exam. Moreover, ETS struggled with difficulties of its own taking more than 12 months to return the test results of SU students. Despite all of the challenges, when normed against a national sample, SU students scored higher, on average, in every qualitative performance criteria than their national peers and their norm-referenced scores placed the University in the 81st percentile.

In 2006 and continuing in 2007, the University began multiple, parallel, course-embedded assessment efforts to assess the general education core listed in Standard 12 of the Middle States accreditation criteria. In fall 2006, SU assessed the writing and critical thinking competencies of all freshmen enrolled in its English 101 and History 101 courses, which are required courses in the general education core of Salisbury University. A random sample of final exams was selected from the entire student population enrolled in these courses, and the assignments assessed using two rubrics (Appendix C) designed by the History and the English Faculty. At this writing, the assessment results are being aggregated and analyzed, although preliminary results (Appendix D) reveal student performance solidly in the midlevel proficiency range—a level consistent with the University's expectations for freshman performance. Once analyzed, the results will be distributed to the faculty for both discussion and evaluation. Moreover, the University is repeating this process at the end of the spring 2007 semester.

Concurrently, the Mathematics Faculty began to assess the quantitative competencies of samples of students enrolled in Math 100 (College Algebra), Math 140 (College Algebra and Trigonometry), and Math 155 (Modern Statistics with Computer Analysis) using a series of standardized and embedded quantitative problems (Appendix E). Any one of these math courses fulfills the general education requirement for quantitative reasoning in the “course-based” general education model. As such, it is hoped that the assessment results, when aggregated, analyzed, and subsequently distributed by the Mathematics Faculty, will confirm the transition to a competency-based model that is assessment-driven.

Likewise, the Communication Arts faculty began to develop a rubric to assess oral communication competencies during the spring 2007 semester. The rubric and the implementation process continue in the developmental stage.

In spring 2007 and after discussion with the Special Assistant to the Provost and the Director of University Analysis, Reporting, and Assessment, Salisbury University's Provost asked the Faculty Senate to reconsider the role of the University Academic Assessment Committee. The Senate discussed the request, ultimately endorsing the transition of the UAAC from an ad hoc committee to a permanent standing committee of the Faculty Senate, subsequent to the development and approval of new bylaws. The current membership of the UAAC forwarded draft bylaws to the Faculty Senate on May 15, 2007, and requested that the Committee's status be discussed by the full Senate early in the fall 2007 semester. The ad hoc UAAC will continue to lead the University's academic assessment efforts, including the assessment of general education competencies, until action on the proposed bylaws restructures it as a permanent, standing committee of the Faculty Senate. Additionally, whether as an ad hoc or standing committee, the UAAC will remain faculty-driven with an active reporting relationship to both the Faculty Senate and SU Provost. The Director of University Analysis, Reporting, and Assessment will remain the Provost's primary representative to and on the UAAC, collaborating with and supporting a committed team of faculty professionals. This structure ensures that the SU Faculty continues as the primary architects of ongoing academic assessment while accountability remains with Academic Affairs.

The Faculty of Salisbury University believes that the University's general education program provides its graduates with the foundational skills and competencies needed to succeed in all endeavors throughout their lifetimes. However, the evidence for that assertion has, until more recently, been more anecdotal or grade-based, than assessment driven. Recognizing these limitations, the faculty has proceeded purposely to develop, initiate, and pilot multiple direct assessments of the general education core. These activities include both nationally standardized and course-embedded methodologies. The discussion and evaluation of these instruments, including the assessment results, continue as an ongoing, faculty-driven activity. Further, as additional methods are piloted and supplemental data obtained, the faculty will be able to evaluate the results in order to enhance the curriculum and improve the learning competencies championed for all graduates.

MHEC Staff Review of 2007 Student Learning Outcomes Assessment Report

Salisbury University's Faculty Senate acted in spring 2007 to make the University Academic Assessment Committee (UAAC) a permanent standing committee. This committee, along with a Special Assistant to the Provost, oversees the university's assessment program.

Definitions for all four general education competencies are articulated in a "Student Learning Goals" document adopted in 2000. In addition, individual academic programs provide outcomes for each of the competencies that are "relative to discipline-specific standards." Formal, systematic assessment has focused on the Academic Profile/Measure of Academic Proficiency and Progress (MAPP). Examples of various departments' progress in assessment are also discussed. For instance, the History and English departments have begun to assess writing and

critical thinking with rubric-scored assignments. Communication Arts faculty have begun to develop a rubric to assess oral communication.

Results from the Academic Profile are given for all of the general education competencies except technology.

As Salisbury's efforts to assess student learning are "focused currently at the collection and/or analytical phases," the report does not discuss how assessments have been used to enhance teaching and learning. To cite the report again: "Additional assessments and trends will need to be collected and analyzed by faculty before focused discussions occur to enhance the curriculum in specific areas."

Towson University

Institution's Executive Summary of 2007 Learning Outcomes Assessment Report

Assessment at Towson University is embedded, systematic and long term. Assessment of student learning at Towson is based on an annual cycle of assessment that starts with development of department-based assessment plans and continues through implementation of these plans at the course and program level. Each graduate and undergraduate academic department and program at Towson submits an annual assessment report that details and links student learning goals with assessment activities designed to measure those goals. These reports include results and analyses of results, and outline the steps the department or program will take to use these results to improve student learning.

Assessment of student learning at Towson also takes places through the University System of Maryland program review process, coordinated at the campus level by the Office of Assessment. Each academic program at Towson University is required to prepare and submit a self study program review to USM. These reports include not only internal review and recommendations but also the review and recommendations from an external reviewer who has been selected by the appropriate college dean as an expert in the discipline or field under review.

A third form of assessment at Towson University is through its course evaluation process. Currently, academic departments within each of the colleges use a department or college-based student course evaluation form. Results are compiled by the department, by the college or by the Office of Technology Services on campus and returned to the faculty members and to the departments for use in revising course curriculum and pedagogy.

Another way that Towson University assesses student learning is assessment of co-curricular learning. The Student Affairs Assessment Committee, a standing committee of the Student Affairs division that is chaired by the Associate Vice President for Campus Life and comprised of representatives from each unit in student affairs as well as the Director of Assessment, meets twice a month to develop, review, and implement program assessment plans for co-curricular learning.

Assessment at Towson University is not only internally developed and measured. External evaluation of student learning is equally important, particularly the use of benchmarks and comparative data outside the university community. To facilitate this external assessment, Towson participates in a number of nationally-normed, standardized surveys. These instruments include the National Survey of Student Engagement, the College Student Survey, and the CIRP first year student survey. These surveys facilitate Towson's understanding of the student experience and allow us to compare our results to those of peer institutions across the nation as well as augment and support the assessment data we collect through campus-based initiatives.

General Education Assessment

General education requirements at Towson University are designed to help students gain essential intellectual skills and knowledge that will be important throughout their lives. General education requirements are grouped in two basic categories (Skills for Liberal Learning

and Contexts for Liberal Learning) divided into 12 subcategories made up of 418 courses in 46 departments. Formal assessment of general education courses occurs within each general education subcategory grouping. Since 2002, assessment of general education courses has been tied to the re-certification process. General education competencies are also assessed at the undergraduate program level as part of the undergraduate program assessment cycle, as well as with results from national surveys conducted each year at Towson. Within the general education curriculum at Towson University, five primary competencies are assessed: Written and oral communication, scientific reasoning, quantitative reasoning, critical analysis and reasoning, and technology competency. Overall, direct and indirect methods are used to assess student learning at the course, program and institution-wide level, and results inform curriculum, pedagogy and program revisions. Results show that Towson University student have developed college level proficiency for each general education competency.

Written Communication

Students develop written communication competency through three General Education requirements: a first year course in Writing for a Liberal Education (WLE), a first year course in Using Information Effectively (UIE), and an upper level course in Advanced Composition. Written communication competence was assessed in these three general education requirements using a combination of direct and indirect methods of assessment at the course, program and major levels. In WLE courses, ninety-one percent of papers read were evaluated as at least “marginally adequate” using a scoring rubric derived from written communications learning goals and in UIE course, eighty percent of students evaluated successfully completed a quiz measuring written competence. Assessment of advanced composition in the disciplines using a scoring rubric and multiple readers demonstrated a level of writing competence with students adequately meeting the requirements of written assignments. Pre/post testing results from advanced composition courses in the majors showed improvement in writing over the course of study. Changes made in written communication curriculum as a results of these assessments included targeting problematic areas of written communication determined from rubric analysis, adding more opportunities for critical thinking and analysis to writing assignments, focusing on the mechanics of writing, and providing greater structure to writing assignments through the use of drafts and revision.

Oral Communication

Students develop oral communication competence through the Using Information Effectively requirement of the General Education curriculum and through the undergraduate degree programs. Assessment in UIE courses includes evaluation of in-class presentations through the use of a scoring rubric. Results showed 90% or more of student presentations were “marginally adequate” or better. Multimedia requirements are being incorporated into the presentations and will be assessed during the 07-08 academic year. Assessment of oral competence in the major included thesis defense, classroom presentations, and oral proficiency in a foreign language. Results from 2005 and 2006 showed that at least 95% of students evaluated usually master the mechanics of an oral presentation or oral proficiency. Changes in curriculum as a result of these assessments center on increasing the level of content for the presentations, practical application of presentation skills in a field setting, and strategies to increase retention of content knowledge for inclusion in the presentations.

Scientific Reasoning

Students develop scientific reasoning competence through the Scientific Inquiry requirement of the General Education curriculum. Scientific Inquiry courses are offered by four departments: Biology, Chemistry, Geography, and Physics. Direct methods of assessment at the course level include embedded test questions, guided inquiry exercises, and laboratory reports and assignments. Student success on embedded test items ranged from 60% correct (minimally acceptable) to 92% (average or above average) across the four course content areas. Laboratory assessments ranged from 2 points (minimally acceptable) to 6 points (very acceptable). Curriculum changes as a result of these assessments included a greater focus on breadth of content covered, sequencing of course materials, spiraling lab skills to move from basic to more complex skills several times during the semester, and development of critical thinking skills in the interpretation of laboratory results.

Quantitative Reasoning

Students develop quantitative reasoning competency through the College Mathematics requirements of Towson's General Education curriculum. Courses in this category test concepts and skills in the mathematical sciences at the level for college algebra and above. This competency is assessed through direct assessment methods at the program level using four embedded exam questions scored on a 0, 1, or 2 scale. Results in 2004 showed that 65% of students scored at least a 1 and 43 scored a 2. Several interventions were implemented as a result of these findings. 2006 assessment demonstrated a 15% gain in proficiency levels with 80% of students assessed receiving a score of at least 1 and 47% receiving a score of 2. Based on 2006 results, the College Mathematics curriculum has continued use of problem solving methodology, student-oriented course instruction, and implementation of alternative methods of assessment.

Critical Analysis and Reasoning

Critical analysis and reasoning competence is developed in all General Education courses at Towson University and is uniquely linked to the other general education competencies. Based on general education direct and indirect assessment findings, students at Towson are able to organize information in writing, support a main argument in writing, demonstrate correct mechanics, organize information orally, solve problems and synthesize solutions, construct and evaluate arguments, solve math problems, identify potential sources of information, find appropriate information, and use information to answer questions and solve problems. Within the departments, all Towson majors require students to think critically in their courses. This competency is measured through direct assessment at the course and program level. For example, in a Biology assessment, 55% of students were "highly successful" in demonstrating critical thinking skills when moving from introductory level courses into identified breadth courses and 79% were very successful. A new innovative, on-line advising course is being offered in Fall 2006 to ensure students in the major acquire appropriate pre-requisite skills prior to moving into advanced study. Portfolio review of seniors in a capstone course in Political Science showed that 72.5% of students demonstrated satisfactory achievement in critical thinking and 25% of students were above average. As a result of this direct assessment, the Political Science curriculum was revised to include a required research methods courses and a department-wide policy was instituted to link course goals directly to department goals for student learning.

Technology Competency

Students develop technology competence through general education requirements and through courses in the major program. National Survey of Student Engagement (NSSE) results show that Towson students are more likely than students at peer institutions or all NSSE institutions to use an electronic medium to discuss or complete an assignment (2.86 to 2.55 or 2.61 respectively) and to use email to communicate with an instructor (3.13 to 2.95 or 3.06 respectively).

Technology competence is assessed through the general education UIE courses and through the major programs. Direct assessment of students at the program level in a Computer Science internship course found that 100% of students evaluated used software efficiently and effectively for writing, spreadsheets, presentations or design; and used electronic mail, the Internet, and other contemporary electronic services to complete research and assignments. Assessment of students in an English core course showed that knowledge and skills in using technology for literary research increased by 2.17 points, from 2.17 when entering the program to 4.35 upon graduation. This result is credited to requiring a research methods course at the start of the major, a curriculum change identified from a 2004 assessment.

Survey Data

In support of multiple methods of assessment, Towson University uses results from the National Survey of Student Engagement as an indirect measure of student proficiency in General Education requirements at the institutional level. Quantitative analyses of NSSE data from 2005 yield four groups of results (1) overall summary results; (2) five benchmark categories generated by NSSE; (3) Middle States standards to which NSSE questions are mapped; and (4) TU strategic initiatives. Specific analyses were made to identify student response related to general education competencies. Items on the NSSE survey were linked to two Middle States standards for accreditation. These standards included Standard 12, General Education, and Standard 14, Assessment of Student Learning. Standard 12 looks at whether an institution's curricula are designed so that students acquire and demonstrate college-level proficiency in general education and essential skills. Results from 2005 suggested that Towson students were slightly less likely than selected peers or NSSE schools to say that their experience at Towson contributed to their knowledge, skills and personal development in a number of general education competencies. These findings are being incorporated into the general education revision process. However, Standard 14, which covers assessment of student learning in the knowledge, skills and competencies consistent with institutional goals, showed that Towson students exceeded peer performance on a number of activities and assignments linked to achievement of general education competence.

New Initiatives

Three new initiatives in general education assessment are beginning at Towson: Revision of the general education curriculum, assessment of co-curricular learning, and the measure of value-added through the Collegiate Learning Assessment. A General Education Review Committee was convened in January 2007 and charged with reviewing Towson's general education requirements and making recommendations for a revised General Education program. Development of specific guidelines for each General Education area will include an embedded General Education assessment plan that will be implemented as curriculum changes begin.

A second initiative in general education assessment is the concept of measuring the “value-added” by an institution to student learning. Value-added is the difference between the skills and abilities students bring with them to college and the skills and abilities with which they leave upon graduation. Beginning in the 2007-2008 academic year, Towson will administer the Collegiate Learning Assessment to a sample of incoming first time full time students and to a sample of graduating seniors. The CLA is a performance-based direct measure of student learning at the institutional level and focuses on assessing how well colleges and universities help their students develop and improve higher order thinking abilities and communication skills. Towson will incorporate CLA value-added results into its overall academic assessment program.

A third initiative in general education assessment at Towson University is the indirect assessment of general education competencies through co-curricular learning outcomes assessment. The Student Affairs Assessment Committee oversees the Student Affairs Assessment process and has developed a set of division-wide learning outcomes. These outcomes look at the ways in which students critically analyze and reason, and the ways in which they communicate. Assessment plans have been developed and piloted in student affairs programs to measure these goals and will be officially implemented during the 07-08 academic year.

In sum, Towson University has a vital, ongoing, and systematic process to evaluate student learning across the disciplines and across campus using multiple methods of direct and indirect assessment at the course, program and institution-wide levels. This program focuses on assessing general education competencies, learning in the major and co-curricular learning. A test of value-added will be added in the 07-08 academic year. Indirect assessment using NSSE data will continue to be used to inform results from course and program based direct methods of assessment to enrich Towson’s understanding of the student experience.

MHEC Staff Review of 2007 Student Learning Outcomes Assessment Report

As mentioned in MHEC’s 2004 review, **Towson University** had “a very active assessment program in place.” This continues to be the case. All academic departments and programs submit an “assessment report” annually that discusses their respective learning goals and assessment activities. Institutional-level assessment includes the administration of the National Survey of Student Engagement (NSSE), the College Student Survey, and the CIRP first year student survey.

Towson clearly defines each of the general education competencies; like some other institutions, Towson provides separate definitions for written and oral communication, as well as distinct definitions for scientific and quantitative reasoning.

Results for various measures are also discussed. These range from the results of rubric-scored essays in a composition course to embedded exam questions in mathematics. And, according to its report, Towson continues to use its assessment results. Chemistry courses, for example, are being revised to better develop critical thinking skills and basic lab skills. Learning outcomes have been revised for courses in the Family Studies major “to more clearly reflect areas in which

students need to improve.” Writing and critical thinking now receive “additional focus” in the research methods course for majors.

Towson’s report also discusses its process for a revision of its General education curriculum, now in the nascent stages. 2007-2008 will also see the university administer the Collegiate Learning Assessment (CLA) to a sample of incoming freshmen and graduating seniors, in hopes of measuring Towson’s *value-added*. Co-curricular learning outcomes will also be indirectly assessed this coming academic year, involving Student Affairs in the assessment process.

University of Baltimore

Institution's Executive Summary of 2007 Learning Outcomes Assessment Report

The Progress Report on Student Learning Outcomes Assessment at University of Baltimore indicates that assessment of the general education requirements, as enumerated in Standard 12 of the Characteristics of Excellence in Higher Education of the Middle States Commission on Higher Education, is underway. Specifically, the 2007 report for the Maryland Higher Education Commission highlights the following:

- University of Baltimore assesses those general education goals which are part of its upper-division core curriculum and/or are emphasized in the required courses of the major.
- The University convened committees to review two core courses, IDIS 300- Ideas in Writing and IDIS 302-Ethical Issues in Business and Society. Learning goals for both of these courses the general education goals of writing and critical thinking and reasoning. Recommendations and resulting course redesigns are in the process of being implemented and in the case of *Ideas in Writing*, include guidance from Carol Twigg of the USM Course Redesign Project. The review of *Ethical Issues in Business and Society* recommended a common rubric with learning goals, and additional training and observation for adjunct faculty.
- The University of Baltimore has, for the past three years, utilized indirect measurement techniques in its evaluation of learning outcomes. Plans are underway to begin direct measurement of learning outcomes.
- Oral communication and scientific and quantitative reasoning competencies have not been measured in the past at University of Baltimore. However, with the introduction of first-year students beginning in fall 2007, lower division general education courses will be offered and will include defining and planning the assessment of these two competencies.
- Technological competency is expected at the time of admission to UB; credit-bearing courses and non-credit training and workshops are provided for those who lack basic skills as well as for those who wish to upgrade their skills.
- Langsdale Library provides instruction in information literacy at the request of individual faculty members. The Library, with the collaboration of faculty conducted pre- and post-tests to assess student learning for several courses. This information has been used to improve information literacy sections within courses. The library will participate in both development and assessment.
- Over the past two years, UB has been planning and implementing the inclusion of lower division students and the corresponding general education courses and assessments. This university-wide transition will culminate with the initial enrollment of first-year

students in fall 2007. The draft assessment plan for the lower division was reviewed during the recent site visit of a Middle States evaluation team and met with their approval and the University was commended by them for it. The second part of this document highlights some of the planned assessment activities.

MHEC Staff Review of 2007 Student Learning Outcomes Assessment Report

University of Baltimore has spent much time during the past few years preparing for fall 2007 when, for the first time, the school will offer lower division education. UB has planned for the general education courses this transition necessitates, as well as the accompanying assessments.

While the report discusses University of Baltimore's new programs (including planned measures of assessment), it also addresses assessment activity that took place in its upper division coursework during the past three years. Written communication, critical analysis and reasoning, and technological competency are the general education areas considered.

Definitions for these competencies are provided, along with examples of measures and assessment results. For written communication and critical analysis and reasoning, examples of how results have been used to enhance teaching and learning are noted. The report also discusses results for assessment measures in technology (course grades in COSC 100); however, no documented changes have occurred due to students' performance since UB considers "this as a competency to be earned prior to attendance."

University of Maryland, Baltimore County

Institution's Executive Summary of 2007 Learning Outcomes Assessment Report

UMBC engages in extensive assessment activities designed to evaluate and improve student learning outcomes. The campus recognizes that different disciplines have different needs requiring different assessment techniques and therefore no single approach to assessment is mandated. UMBC's assessment efforts complement ongoing campus planning processes and are used to support the re-examination of assumptions, values, priorities, goals, objectives, practices, and programs as they relate to our mission and position among other institutions.

Over the past few years, the university has made significant strides in developing a culture of assessment on the campus. In addition to its ongoing institutional and program-level assessment activities, UMBC initiated several activities with an assessment focus:

- 2000: UMBC participated for the first time in the *National Survey of Student Engagement* (NSSE), which measures engagement in many important activities that relate to student learning and personal development. The university has made extensive use of NSSE results obtained in 2000, 2001, 2004, and 2005, monitoring changes over time and comparing our results to those of peers and to the national norms. The next administrations of the NSSE are scheduled to take place in 2008 and 2009.
- 2003: A *Campus Assessment Coordinating Committee* was established to help improve the quality and usefulness of campus survey assessment activities.
- 2003: UMBC partnered with the *Center for Academic Integrity* to assess knowledge, behaviors, and attitudes concerning integrity among students, teaching assistants, and faculty members.
- 2004: Living Learning Community students participated in the *National Living Learning Survey*.
- 2004: UMBC students participated in the *National College Health Assessment* (NCHA).
- 2004: The campus initiated *UMBC Self-Study 2006* in preparation for its Middle States Association re-accreditation.
- 2005: Building on the work of an ad-hoc committee, UMBC established a standing *General Education Committee* charged with implementing a new competency-based general education curriculum, the General Education Program (GEP).
- 2005: UMBC participated in the first national administration of the *Faculty Survey of Student Engagement* (FSSE).
- 2005: The Division of Student Affairs hired a *Coordinator for Assessment and Research* whose duties include development of an assessment plan for the Division.
- 2006: UMBC was among ten major universities selected by the Carnegie Foundation for the Advancement of Teaching to participate in the *Carnegie Academy for the Scholarship of Teaching and Learning* (CASTL) Institutional Leadership program with a focus on assessment of our Undergraduate Research initiatives.
- 2006: The Provost established an *Assessment Committee* to formalize the university's assessment processes and to plan for dissemination of assessment data.

Detailed reports for many of these surveys and descriptions of the initiatives are available to the campus community and to the public through the Web sites of the Office of Institutional Research (<http://www.umbc.edu/oir>), the Office of the Provost (<http://www.umbc.edu/provost>), and the Office of Undergraduate Education (http://www.umbc.edu/undergrad_ed).

Assessment

The university's formal academic program reviews mandate that departmental self-studies address student learning outcomes, and progress toward direct measurement of outcomes has been made in many departments. To assist faculty members in acquiring the skills needed for assessment, the Faculty Development Center offers workshops on course design, formulation of learning objectives, implementation of assessment techniques, and the application of rubrics to evaluate student performance.

UMBC's assessments of student learning outcomes are based primarily on indirect measures obtained from course grades and student surveys. For this report, grades from the spring 2006 and fall 2006 semesters were examined. Although academic credit is earned for a grade of D or better and for a Pass, for outcomes assessment, a "pass" is defined as a grade of C or better. All students registered at the end of the second week of classes (including those with grades of P, I, W, WX, and Au) are included in the calculation. Courses are flagged for additional scrutiny if the pass rate falls below 70%. Survey data are taken from the *National Survey of Student Engagement* (NSSE) and from the university's biennial *Alumni Survey* of baccalaureate recipients one year after graduation.

Competency: Written and Oral Communication

Definition. (1) understanding and applying both the verbal and nonverbal aspects of communication, by utilizing fundamental rhetorical strategies and conventions, such as purpose, audience, genre, tone, format, and structure; (2) understanding writing as a process that involves multiple drafts, incorporating feedback, revising, editing, and proofreading; (3) identifying, selecting, and evaluating appropriate sources, including print and electronic texts, cultural artifacts, or artistic creations; (4) acknowledging and documenting sources used to support an argument or presentation; (5) developing a foundation for cross-cultural communication.

Assessment. Indirect evidence comes from grades in the three English writing courses and in courses that have been approved as "writing-intensive." Such courses must: (1) engage students in writing as a skill for critical inquiry and/or scholarly research; (2) require students to write frequently in and/or out of class; (3) provide useful feedback to students regarding their writing; and (4) discuss the work students are doing as writers at various points during the term. For oral communication, we are using course grades in three Speech courses. Other evidence comes from the 2005 NSSE and from responses to the 2005 *Alumni Survey*.

Results. Pass rates for the courses addressing written and oral communication were generally quite high, and only 3 of the 32 courses had pass rates that fell below 70%. In each case, enrollment in these upper-division courses was small and the low pass rate was attributable to the conservative method of calculation. For those who completed the course and received a letter grade, the average grades were 2.89, 2.50, and 3.60, respectively.

On the NSSE, for the item “Writing clearly and effectively,” Freshmen and Seniors gave mean ratings of 2.60 and 2.91 respectively (max. 4.00). Each of these means has improved since the 2001 NSSE (cf., 2.48 and 2.67), but they remain below the NSSE national averages (3.00 and 3.14, respectively). A similar result was obtained for the item “Speaking clearly and effectively,” freshmen and seniors gave mean ratings of 2.33 and 2.76 respectively (cf., 2001, 2.18 and 2.56), whereas the 2005 national norms were 2.78 and 3.03.

On the 2005 *Alumni Survey*, 60% of respondents reported that UMBC had contributed “Very much” or Quite a bit” to their “Writing clearly and effectively,” a slight improvement over the percentage from the Class of 2001 (57%). In contrast, only 48% of respondents to the 2005 survey reported that UMBC had contributed “Very much” or Quite a bit” to their “Speaking clearly and effectively.” This value was slightly lower than for the Class of 2001 (51%).

Use of results. In 2004 we noted that despite high pass rates for English 100, English 391, and English 393, reports from students on the NSSE and alumni surveys, as well as informal feedback from faculty and student leaders, strongly suggested that our students needed additional writing experience. A proposal to require an additional writing course was approved by the Faculty Senate in 2004-2005. Students will be required to complete a writing-intensive course in an academic discipline in addition to the required English 100 composition course. Over the past two years, the University’s Writing Board has reviewed and approved writing-intensive courses in the disciplines, and the new requirement goes into effect with students entering UMBC this fall.

Competency: Scientific and Quantitative Reasoning

Definition. (1) understanding and using mathematical and scientific methods of inquiry, reasoning, processes, and strategies to investigate and solve problems; (2) organizing, interpreting, drawing inferences, and making predictions about natural or behavioral phenomena using mathematical and scientific models and theories; (3) recognizing the ethical and social implications of scientific inquiry and technological change and distinguishing science from non-science and pseudoscience; (4) recognizing that mathematical, statistical, and scientific evidence requires evaluation.

Assessment. Indirect evidence comes from grades in general education courses (GEP) in the natural sciences and mathematics. In addition, we include student reports from the 2005 NSSE and *Alumni Survey* items “Analyzing quantitative problems.”

Results. Pass rates for the science and mathematics courses were generally high but 9 of the 34 courses had pass rates below 70%. As a group, these courses tended to have rather high withdrawal rates and broad grade distributions averaging around a C (2.00). This most likely reflects the requirement that all students, regardless of talent or motivation, must complete at least one course in mathematics.

On the 2005 NSSE, for the item “Analyzing quantitative problems,” freshmen and seniors gave mean ratings of 2.83 and 2.99, respectively (max. 4.00), an improvement since 2001

(cf., 2.60 and 2.74). UMBC is now comparable to our peer institutions and to the NSSE national norms on this item. On the 2005 *Alumni Survey*, 65% reported that UMBC had contributed “Very much” or “Quite a bit” to their “Analyzing quantitative problems.” This is an improvement over the percentage reported by the class of 2001 (59%).

Use of results. A recent example of the use of student learning outcomes is the redesign of Chemistry 101. In AY 2004, the pass rates for Chemistry 101 and 102 were 65.1% and 66.2% respectively. Since that time, the department redesigned the 101 course, creating the Chemistry Discovery Center—a problem-based, high-tech laboratory focused on cooperative learning. Two years later the pass rate for Chemistry 101 has risen to 72.2%, with a mean grade of 2.30.

A second example links course selection and outcomes to retention. A study of students’ performance in mathematics gateway courses as a function of placement test scores and appropriateness of the students’ course selection. Results for Calculus & Analytic Geometry I & II revealed that students appropriately placed into these courses, who received a grade of D or F, had markedly lower one-year retention rates (72.2% and 70.8%, respectively) than students who received a grade of C or better (86.0% and 90.2%, respectively).

Competency: Critical Analysis and Reasoning

Definition. (1) identifying and formulating questions and problems and evaluating various methods of reasoning and verification; (2) identifying and evaluating stated and unstated assumptions, supporting evidence and data, alternative points of view, and assessing implications and consequences of particular courses of action; (3) constructing cogent arguments, providing supporting evidence, articulating reasoned judgments, and drawing appropriate conclusions; (4) applying fundamental critical thinking skills to the analysis and interpretation of a variety of subjects, including ideas and issues, cultural artifacts, or aesthetic works.

Assessment. Indirect evidence comes from grades in selected regular, discipline-based courses that emphasize critical thinking or scholarly/research methods and analysis in the discipline, plus courses designated as required capstone courses. These data are augmented with student reports from the 2005 NSSE and the 2005 *Alumni Survey*.

Results. Five of the 35 courses examined had pass rates below 70%. Four of these courses introduce students within a discipline to the quantitative methods of social and behavioral science—a significant challenge for many students who are more interested in “content” courses than in the rigors of conducting empirical research. The remaining course is a course in Critical Thinking with an unusually high withdrawal rate (24.2%) but a satisfactory pass rate for students who complete the course (77.1%).

On the NSSE item “Thinking critically and analytically,” freshmen and seniors gave mean ratings of 3.08 and 3.29, respectively (max. 4.00). These results are slightly higher than in 2001 (cf., 3.00 and 3.20), and they remain comparable to those of our peer institutions and to the NSSE national averages. On the 2005 *Alumni Survey*, 79% reported that UMBC had contributed “Very much” or “Quite a bit” to their “Thinking critically and analytically.” This is an improvement over the percentage reported by the class of 2001 (72%).

Use of results. Because nearly all of the courses related to this competency are taught within the context of an academic major, responsibility for monitoring student outcomes and revising course structure or major requirements rests with the faculty of the academic program. As just one example, in fall 2005 the Interdisciplinary Studies Program proposed a new course, INDS 480 (Capstone Project Seminar) as a requirement for the major and a prerequisite for INDS 490 (Capstone Project in Interdisciplinary Studies). The need for this course “was identified and stated as a goal during the INDS self-study” in the program’s 2004 Academic Program Review, and external reviewers had commented that this would “help to improve the quality of students’ capstone research projects” (Source: UMBC New Course Request, 9/16/05).

Competency: Technological Competency

Definition and assessment. (1) Using information technology as one tool for solving problems, identifying and evaluating information sources, and analyzing reports and presentations; (2) using a variety of online or technology-assisted means to present work, such as Web pages, email, online forums, word processing, and presentation and spreadsheet software; (3) understanding the essentials of technology, including hardware and software, networks, and systems. Assessment is based on relevant items from the 2005 NSSE and 2005 *Alumni Survey*.

Results. On the 2005 NSSE, for the item “Using computing and information technology,” freshmen and seniors gave mean ratings of 2.98 and 3.15, respectively (max. 4.00). These results are higher than in 2001 (cf., 2.74 and 2.95) and are now comparable to those of our peer institutions and to the NSSE national averages.

On the 2005 *Alumni Survey*, several items assessed aspects of technology fluency and students reported whether and when they had acquired these skills. With only one exception, the percentage of students acquiring a skill before coming to UMBC was greater than the percentage acquiring the skill during their time at UMBC: (a) setting up a personal computer, 75% vs. 17%; (b) finding and evaluating information on the Internet, 73% vs. 25%; (c) developing or sharing documents or presentations, 61% vs. 34%; (d) learning online, 57% vs. 36%; (e) securing a computer and personal privacy, 52% vs. 28%; (f) using a computer to analyze or display information, 40% vs. 34%; and (g) understanding social and ethical implications of technology, 40% vs. 41%. These results show that large numbers of students enter UMBC with strong technology skills, but significant improvements occur while they are at UMBC. Moreover, very few students acquire these skills and knowledge after leaving UMBC. The three competencies that 10% or more of the alumni still have not acquired are the ones least likely to have been learned before coming to UMBC: (e), (f), and (g) above.

Use of results. In the *Alumni Survey* of the Class of 2001 students indicated the degree to which UMBC had contributed to their knowledge and skills in several IT areas. However, the results seemed rather low given that UMBC is well known for its strengths in science and technology. It seemed possible, if not probable, that significant numbers of students already possessed many of these skills before coming to the campus, resulting in a ceiling effect on UMBC’s contribution to their learning. As a result, the items were revised to the current format for the 2003 and 2005 alumni surveys. The data reported above confirmed the hypothesis, but also showed that UMBC is contributing significantly to their acquisition of these skills.

MHEC Staff Review of 2007 Student Learning Outcomes Assessment Report

Since its last report, **University of Maryland, Baltimore County** has created a standing committee responsible for “implementing a new competency-based general education curriculum.” In addition, the Provost has charged an Assessment Committee “to formalize the university’s assessment processes.” Student Affairs also has a coordinator to oversee assessment in its division.

Detailed definitions are provided for each of the general education competencies. The report also includes results from indirect measures of assessment for each area; these measures include course pass rates, information from the 2005 National Survey of Student Engagement (NSSE), and a 2005 alumni survey.

Assessment analysis has enhanced teaching and learning at UMBC. One example: Chemistry 101 was redesigned after the department noted a 65 percent passing rate and average grade of 1.99 for students taking the course in 2004-2005. The course is now “problem-based” and focuses on “cooperative learning.” The most recently reported pass rate for the course was 72 percent, with an average grade of 2.30.

Concerning technological competency, UMBC reports that changes have been made to the alumni survey used for assessing this area in order to measure more accurately what growth occurs due to the school’s efforts.

University of Maryland, College Park

Institution's Executive Summary of 2007 Learning Outcomes Assessment Report

At UM, assessment practices have become embedded in the institutional culture, and have led to the following: Periodic review and revision of plans with regard to improving student learning; establishment of a cyclical review process; establishment of structural processes for informing the campus with regard to assessment results; and the incorporation of assessment results in short-term and long-term campus planning.

Recent Developments in the Assessment of Student Learning

The University of Maryland hosted its Middle States evaluation team in March of this year. Although the Commission has not yet confirmed the team's recommendations, the team's review was favorable, and gave indication that UM would be reaccredited without recommendations or requirements. The review team noted UM's development of a robust system of learning outcomes assessment in its report submitted to UM and MHEC¹:

- *Expected student learning outcomes at all levels have been clearly articulated for the institution, degree programs, and courses of study. The activities extend from the general education requirements and degree programs in traditional academic disciplines, to the libraries and into the Division of Students Affairs, as well as into programs that operate both inside and outside the classroom, such as the College Park Scholars. The student learning outcomes are consistent, support the mission, and represent an appropriately high standard for a doctoral/research extensive university.*
- *Student learning outcomes have been developed within a process that is well documented, carefully organized, and established in such a way that can be sustained. Multiple measures, supplemented by existing data and information are utilized, and the goals are clear, so that decisions made on the basis of the assessments can be trusted. Both direct and indirect measures are involved in a process supported by the faculty and administration. An ambitious schedule of assessment activities has been developed for the relevant units.*

The systems that UM has put in place, including the review of student learning in our general education program (CORE) and our individual academic programs, have continued even after the departure of the Middle States evaluators, and new results are available since then. Parts of this report have been taken from UM's Middle States self-study report and updated as appropriate. UM is very proud of its accomplishments in these areas, specifically with regard to assessment campus-wide in our General Education program and within the individual academic units. This summary will highlight these developments.

Foundational Education: CORE General Education

Central to the University's efforts is the assessment of the CORE General Education program. In 2004-2005, the CORE faculty subcommittees developed CORE Learning Outcomes (see Appendix A of our full report) for all areas, and the CORE Diversity Assessment Working Group was formed in May 2006 to plan and conduct assessments of student learning from the CORE courses in Human Cultural Diversity. Chaired by the Associate Dean for Undergraduate Studies, the working group had ten members from disciplines ranging from music and women's studies to engineering. During Fall 2006, the group conducted an assessment that was completed

by more than 200 students. Analysis of the results indicated that students at Maryland increase their understanding of diversity as they progress in their education at the University; however, statistics failed to show a relationship between taking Diversity courses specifically and learning about diversity. The final report of the working group is included in our full report, along with all research materials, in Appendix C.

As proposed in the CORE Assessment Plan, two new assessment projects were initiated in spring 2007. Categories selected for study were the lab and non-lab courses in life sciences, analysis will be completed in July. A second survey administration is scheduled for September 2007. Assessment of two additional CORE categories, the lab and non-lab courses in physical sciences, will begin in fall 2007. Two more CORE categories will be assessed in spring 2008, two more in fall 2008, and so on until all CORE categories have been assessed.

Program, College, and Other University Assessments

As described in the first two elements of its Strategic Plan, the University intends to “continue to elevate the quality of undergraduate education” and to “build a strong, university-wide culture of excellence in graduate and professional education.” The September-October 2006 edition of the University’s Center for Teaching Excellence newsletter featured an article by Donna B. Hamilton, Dean for Undergraduate Studies, describing the collective institutional effort to put in place a system of learning outcomes assessment in every department of every college and school. Hamilton summarizes recent changes brought about by a network of committed faculty members and administrators: “In just one year, the University has shifted its approach to teaching and learning by generating statements of learning outcome goals for every degree program offered here at Maryland. To date more than 400 academic programs have stated learning outcome goals for their students, as have the Libraries and Student Affairs. The credit for this amazing progress goes to an energetic campus network that began with the formation of the Provost’s Commission on Learning Outcomes Assessment nearly three years ago.”

Provost’s Commission on Learning Outcomes Assessment

The Provost’s Commission on Learning Outcomes Assessment was established in Fall 2003. Charged by the Provost to work with all campus units as they develop learning outcomes and to establish a new standard for assessment at the University of Maryland, the Commission consists of four interacting groups of UM faculty and administrators.

- The Planning Team establishes the agenda for and oversees the work of the entire Commission, and is chaired by the Dean for Undergraduate Studies.
- The Deans’ Steering Committee, comprised of six college deans, serves as an advisory board for the Planning Team and meets two or three times per year.
- The College Assessment Coordinators serve as liaisons between the planning team and their respective deans and colleges. Each college designates one or two faculty members or academic administrators to serve as coordinators.
- Faculty Working Groups are task-specific groups charged with solving particular outcomes and assessment problems. The first faculty working group developed campus-wide learning goals for the University and conducted two pilot projects. The assessment of CORE general education depends on a series of faculty working groups, one for each of the 13 CORE categories to be assessed.

Academic Programs and Courses

Planning for the assessment of student learning has been an institution-wide collaborative process focused on learning outcomes at course and program levels. Through this process, learning outcomes and assessment plans were developed for each undergraduate major and graduate program offered at the University. The process included the following steps:

- In fall 2005, faculty in each degree program met to discuss and establish course and program learning outcomes. Faculty were asked to elaborate on how program outcomes aligned with University and College missions and strategic plans. Program faculty also defined the assessment methods that will be used to measure the identified student learning outcomes.
- The college-level assessment coordinators acted as peer reviewers at the institutional level and used an assessment plan rubric to review and provide peer feedback on the assessment plans. Plans needing revision were returned to the deans and the college.
- In September 2006, faculty in the academic programs finalized assessment methods and established an initial assessment schedule, and plan to examine results obtained from these assessments beginning in the 2006-07 academic year.
- The first round of completed assessments were due March 15, 2007. As was done during 2006, college coordinators divided into teams to review the assessments. Faculty will use the results to revise student learning outcomes or to initiate program or course changes as appropriate. The learning outcomes assessment process will continue in the future on this calendar, with revised plans and schedules due in September and completed assessments due on the following March. All student learning outcomes in every program are to be assessed within four years or by March 2010.
- Deans and college assessment committees will review the assessment results and make recommendations for further action. College PCC (Programs, Curricula, and Courses) committees will review and approve any resulting program and course changes.
- Deans and the Provost will review and evaluate student learning outcome data, and data-driven program and course changes in conjunction with other assessment information generated in the program review process or elsewhere.

University-Level Learning Outcomes

A faculty working group, convened for the purpose, developed goals and objectives that articulate the educational outcomes to which faculty believe our University aspires for its graduates. As we share these objectives, we help to move the University community toward thinking about student progress in terms of outcomes. The essential elements of the five campus-wide outcomes are summarized below. Complete goals and objectives are available in Appendix E of our full document.

- **Critical Thinking and Research:** Undergraduates should learn and develop critical reasoning and research skills that they can apply successfully within a wide range and intersection of disciplines inside and outside academia.
- **Written and Oral Communication:** Using Standard English, undergraduates will communicate clearly and effectively in writing and orally for different audiences and purposes.
- **Scientific and Quantitative Reasoning:** Undergraduates should understand and be able to apply basic scientific and mathematical reasoning to their research efforts and critical analyses.

- **Information Literacy Skills:** Undergraduates will learn and develop information literacy skills that they can successfully apply within a wide range and intersection of disciplines inside and outside academia.
- **Technological Fluency:** Undergraduates will be able to understand basic technologies and how these relate to their specific disciplines, and will be able to apply these technologies to their research and academic efforts.

One campus-wide project was designed by a subgroup of the faculty working group to assess critical thinking and writing as addressed in the university-level goals and objectives. In spring and fall 2006, more than 200 essays written in response to a standard writing prompt were completed, collected, and evaluated. See Appendix F for a report on this project.

The Campus Assessment Working Group has collected survey results on student learning outcomes since 2000. Students reported “strong” competence for the four critical analysis and reasoning skills defined by the survey. Although a lower percent of students indicated “strong” competence in “writing effectively,” the highest proportion of students indicated that UM had directly affected their skills in this area “quite a bit.” Skills typically useful for doing research tended to receive fewer responses of “strong” and “UM affected quite a bit.” Such skills spanning the learning outcomes categories include framing a research question, understanding various research designs and approaches, recognizing appropriate uses of mathematical and statistical methods, and using a spreadsheet to perform data analysis. See Appendix G for a full report on these results.

Because UM is such a large university with such a diverse array of academic programs, and because each unit states learning outcomes, there are a multitude of ways these essential elements are taught, learned, and assessed across the institution. In addition, each program can make its own local changes to address any shortfalls uncovered in the assessment process. Attached in Appendix H are samples of such assessments from various academic programs. These examples are briefly summarized below:

- The University Libraries investigated students’ ability to identify and locate needed research sources, using several methods. Their Library Safari exercises proved effective, with an 89% success rate. On a more complex team project in a specific program, students were not as successful as the Library had predicted, and they are working with the program coordinator for that project to provide more guidance to students.
- The School of Journalism addressed written communication, technological competency within their field, and numerical and statistical concepts appropriate to their profession. On their combined editing, reporting and writing rubric, students scored highly on editing and writing, but not quite as highly in reporting, prompting the faculty to make a plan to focus additional attention on reporting skills in their gateway course. Students met all the stated goals in technology, and the faculty are now focused on improving even more.
- The Math Department focused on two courses in their major that serve as introductions to theoretical mathematics and foundations for higher mathematics. The faculty were pleased with the assessments of these courses, and recommended that the department work to strengthen the preparation of students in basic properties of complex numbers.
- The Computer Science Department investigated the majors’ programming knowledge and skills, as evidenced by a review of code submissions in an object-oriented programming course. The reviewers were pleased with the results of the assessment, and suggested that students be given more opportunities to design open-ended projects choosing their own methods.

- One-fourth of all upper-level students majoring in Government and Politics were given an assignment to present information “clearly and coherently” on a topic in Political Science. Overall, the department had 74% of its students demonstrate “proficiency” or higher in this assessment. Faculty recommended that more attention should be paid to oral communication skills and that oral communication be a focus of future assessments.
- Economics students in introductory courses were tested on (1) knowledge of terminology and (2) application of theory (critical thinking). Results showed that increased coursework may be needed to help students understand connections between theory and practice. Two new courses have been proposed to assist students majoring in Economics with the relationship between theory and methodology.
- The Department of Psychology examined 15 upper-level student projects for learning in critical thinking and effective communication skills. Findings indicated that, although students were proficient in most areas, critical thinking in research could be improved by more connection between statistics and research methods courses.
- The College of Chemical and Life Sciences looked at bachelor’s degrees in three areas – Chemistry, Biochemistry, and Biological Sciences – by examining (1) tests of pre-requisite content knowledge, (2) sampled student papers, and (3) lab coordinator reports. Results indicated a need for departments to work more closely with transfer students in the areas of scientific and quantitative reasoning. NIH rating scales were used.
- Undergraduate majors in Community Health were asked to write an essay about one of three topics: (1) how social factors compromise the health of individuals and populations, (2) how use of a health behavior model can improve health for individuals and populations, or (3) what roles are played by public and community health professionals. Analysis of the papers looked at performance in written communication and critical reasoning. One conclusion was that the rubric used in analyzing the student papers needed to be refined and improved before further assessments are conducted.
- In Kinesiology, faculty used a rubric to examine a sample of upper-level research papers. They found student performance in research and written communication skills to be excellent or above average for only 20 percent of students and concluded that advanced composition should be considered as a mandatory course for Kinesiology majors.

Division of Student Affairs Learning Outcomes

In a parallel process, the Division of Student Affairs defined and articulated co-curricular student learning outcomes in the following areas: Oral communication; time management; ethical development; lifesaving skills CPR-AED; resume-writing; group process; and, dialogue skills for common ground. A Students Affairs group acted as peer reviewers for the corresponding plans of assessment. See Appendix I for examples of assessment results regarding oral communication skills learned outside the classroom, which indicate that students are doing very well on the criteria established by their programs, with slight room for improvement. The programs intend to share with the students the criteria by which they will be assessed in these ungraded activities, for the purpose of allowing students to practice and assess themselves in preparation for the final presentations.

¹ Quoted from the Report to the Faculty, Administration, Regents, Staff, and Students of the University of Maryland, College Park, by an evaluation team representing the Middle States Commission on Higher Education.

MHEC Staff Review of 2007 Student Learning Outcomes Assessment Report

The **University of Maryland, College Park** has in place a structure and system for assessment that fits with the size of its student body and the breadth of its course offerings. Assessment is anchored in the Provost's Commission on Learning Outcomes Assessment; this commission was established in fall 2003 and was charged "to establish a new standard for assessment at the University of Maryland." Its composition and its recent efforts are discussed in detail in the report.

UMCP has developed and defined five campus-wide goals/outcomes that represent "the essential elements" of an undergraduate education. Each goal includes several clear objectives that a student is expected to achieve. The four general education competencies, along with information literacy skills, make up these campus-wide goals.

Several examples of assessment activity occurring at UMCP are discussed in the report. For example, a critical thinking and writing assessment project, based in the business school, was conducted in 2006 to evaluate these learning outcomes. Over 200 essays were scored and analyzed using a rubric. Researchers have recommended that further work be conducted regarding students' writing.

Other assessment projects discussed: the College of Chemical and Life Sciences, after analyzing assessments in three different majors, decided that transfer students merited more attention in developing their scientific and quantitative reasoning ability. Concerns with transfer students' "academic preparation" were also raised by a 2005 survey that measured self-rated skills and abilities.

UMCP has a highly active assessment culture and its report indicates that assessments are now being used to enhance student learning on campus.

University of Maryland, Eastern Shore

Institution's Executive Summary of 2007 Learning Outcomes Assessment Report

Overview

This report is in fulfillment of the reporting requirement by the Maryland Higher Education Commission (MHEC) on General Education. It provides information on the progress made by the University of Maryland Eastern Shore (UMES) concerning the assessment of the competencies identified in the Middle States' *Characteristics of Excellence* Standard 12 General Education: written and oral communication, scientific and quantitative reasoning, critical analysis and reasoning, technological competency, and information literacy. The focus is on how the assessment of these five competencies within our General Education curriculum contributes to the process of continuous improvement of student learning and achievement. The overarching purpose of General Education at UMES is to provide a common core of academic course work to support effectively students' choices of majors and to prepare them for success and lifelong learning.

Significant progress has been made with regard to the assessment of all the five competencies since the last SLOAR report of 2004. First, UMES met all 14 standards, including Standard 12 on General Education for its reaffirmation of accreditation by the Middle States Commission on Higher Education in 2006. Second, the University continues to implement and fine-tune its assessment process for General Education to ensure continuous improvement of student learning, instruction, and curriculum. Third, based on lessons learned since 2004, UMES has determined that a comprehensive review of General Education is needed to strengthen student learning in disciplinary areas (see Appendix 1B).

Written and Oral Communication

Competence in written and oral communication is defined as the ability to prepare essays, other written assignments, and spoken presentations that demonstrate clarity, coherence, and organization. The competent student will demonstrate the ability to restrict a broad subject to a more succinct topic, which is further developed in a clear and logical manner. Written work and oral presentations will exhibit an understanding of acceptable levels of standard grammar, syntax, and articulation. The student writer will also demonstrate the ability to use the appropriate rhetorical method for the chosen subject; choosing from methods, such as definition, comparison and contrast, causal analysis, and classification

To assess student competence in written communication, UMES uses the nationally-normed instrument Accuplacer-WritePlacer-Plus-Electronic Testing, developed by the College Board. This is a high stakes assessment test used as the English Language Proficiency Examination (EPE) administered to students after they have completed English courses ENGL 101 (Basic Composition I) and ENGL 102 (Basic Composition II). WritePlacer™ benefits students, faculty, and administrators with quick and accurate test results, using descriptors of scores, ranging from 0 to 12 (see Appendix A). Writing samples for WritePlacer Plus™ are scored using a modified holistic scoring scheme, a procedure used to evaluate the overall quality of writing based on five features of writing: (1) Focus, (2) Organization, (3) Development and Support, (4) Sentence Structure, and (5) Usage, and Mechanical Conventions.

In the period from fall 2004 to Spring 2006 the general passing rate for students taking the EPE/Accuplacer for the first time ranged from 91.5% and 93.6%. These data verify that the current course learning outcomes for ENGL 101 and ENGL102 for essay development are being met. The data also revealed that the majority of the students successfully completed the exam on the first try and that students attempting the exam on the second try had a higher probability of success. The number of students needing to repeat the examination three to four times were less than 1% of testing population. Based on this performance, faculty responsible for instruction for written communication have concluded that major changes are not required at this time. Thus, the few students who are unsuccessful are provided additional support in preparing to retake the exam. Currently, students are provided oral communication skills through a fundamentals of contemporary speech course, ENGL 203, in which students deliver short original speeches on outside readings and reports. A systematic assessment process using a common rubric for observation of oral communication is being considered and appropriate analysis and use of results will be included in future SLOAR reports.

Scientific and Quantitative Reasoning

Scientific and quantitative reasoning at UMES is defined as the ability to identify and apply basic scientific principles to enhance understanding of our universe. It is also the ability to assign and use numbers, read and analyze numerical data, create models, draw inferences, and support conclusions. The four outcomes assessed for this competency are: (1) using numerical data to solve a real-world problem; (2) analyzing data for supporting research; (3) understanding and interpreting data expressed in charts and graphs; and (4) identifying and applying the scientific method, correcting formulas, and technologies in appropriate settings. These outcomes are elaborated further in Appendix 2A for Natural Sciences. The Departments of Natural Sciences and Math and Computer Science have primary responsibility for providing instruction for Scientific and Quantitative reasoning. Other departments offering some instruction to meet this competency include Agriculture and Human Ecology.

The two student learning outcomes assessed in Math are (1) using numerical data to solve a real-world problem; and (2) understanding and interpreting data expressed in charts and graphs. Based on trend data of assessment analysis (see Appendix 2B), the Department of Natural Science determined that CHEM 111 (65.38%) and CHEM 112 (65.47%) did not meet the success rate threshold of 70% of the cohorts for 2004-2005. Similarly, CHEM 112 (41.01%) for 2005-2006 fell short of the threshold. Analysis of results for CHEM 113 labs and CHEM 114 labs for both periods represents strong performance by students. Indirect measure results for MATH 109, MATH 110, and MATH 112 since 2004 have indicated a wide variance in success rates across sections of multi-section courses. Initial results reflect an initial decrease in successful course completion followed by improved performance of students in subsequent coursework. Subsequent results suggest that students are successfully meeting the challenges of increased expectations. As shown in Appendix 2B, the Department of Natural Science has used the analyzed results for CHEM 111 and CHEM 112 by making proposals for course redesign for these two courses. In fact, approval for redesigning CHEM 111 (Principles of Chemistry) has been granted by the University System of Maryland in collaboration with the National Center for Academic Transformation and funds in the amount of \$20,000 by the University of Maryland Eastern Shore (UMES) have been made available for the project.

Course improvements in response to indirect assessment data include: Key course components (syllabi, texts, assignments, and examinations) have been standardized. Supplemental instructors provided for gateway (MATH 109, MATH 110, MATH 112) courses; level of web-based support have been maximized; increased use of computational and representational software in instructional activities and assignments; and increased faculty development have been realized.

Critical Analysis and Reasoning

Critical analysis and reasoning includes the ability to use logic, inductive, and deductive reasoning, and other disciplined thinking. As a result of program review, the University is re-examining its General Education curriculum to provide more emphasis on the critical analysis and reasoning competency. Plans to address this competency include the introduction of the following courses: (1) Introduction to Logic-PHIL 201: The goal of this course is learn how to differentiate good from bad arguments. The approach is two-sided: (a) the analysis and classification of fallacies and (b) the analysis and the construction of valid arguments; and (2) Ethics – PHIL 202: This course deals with major philosophers, such as Aristotle, Hobbes, Hume, Mill, and Kant. These two courses will provide the intellectual groundwork for instructors in subsequent courses to address issues such as ethics with a particular and specific application, and to do so with the confidence that students have been introduced to the process of disciplined thinking.

Currently, the Department of Mathematics and Computer Science provides instruction to students, especially from the humanities, for them to demonstrate critical and analytical thinking skills. This is accomplished through the study of symbolic logic as a discrete structure. Student learning outcomes that support General Education outcomes in this area include student ability to manipulate statements, such as conjunctions, disjunctions, negations, conditionals, bi-conditionals; students ability to use truth tables as a problem solving tool; ability to solve authentic problems and analyze arguments using Euler diagrams; determine the validity of arguments using truth tables; and use of switching networks as a problem solving tool.

The two philosophy courses (PHIL 201 and PHIL 202), once approved by Senate, will be the point of assessment for student competency in critical analysis and reasoning. In addition, the current Math course (MATH 102) provides an alternative way for assessing this competency. MATH 109, MATH 110 and MATH 112 also expose students to the elements of mathematical proof and logical argument implicitly through a number of key concepts and theorems that are developed and applied in course activities. Direct measure results are not available at this time but will be systematically collected and analyzed for future reporting. Since 2004, the indirect measure results based on MATH 109, MATH 110, and MATH 112 indicate wide variances in success rates across sections of multi-section courses. Initial results reflect an initial decrease in successful course completion followed by improved performance of students in subsequent coursework. Subsequent results suggest that students are successfully meeting the challenges of increased expectations.

Based on the analysis of the indirect measures, course improvements that have occurred include: standardization of key course components (syllabi, texts, assignments, and examinations); recruitment of supplemental instructors provided for gateway (MATH 109, MATH 110, and

MATH 112) courses; maximization of the level of web-based support has increased use of computational equipment and representational software in instructional activities and assignments; and increased faculty development activities.

Technological Competency

Information Technology at UMES involves the use of hardware, software, services, and supporting infrastructure in the rapidly changing world of Information Technology. Graduates possess the ability to apply information technology to their work and personal lives. At UMES, students develop competence in basic aspects of Information Technology, including the ability to operate a personal computer effectively, particularly the use of software for word processing, spreadsheet/graphics, database, PowerPoint, and the Internet.

The overarching outcome pertaining to this competency is effective utilization of technology in the analysis, and communication of ideas; and the management, organization, and examination of information. Specific student learning outcomes include students will be able to (1) describe the essential components of a computer system and distinguish between system and software usage; (2) define and identify the basic components of a database; (3) identify and define basic internet terminology and activities; (4) demonstrate the ability to utilize Microsoft Word to create and edit documents, author reports and newsletters, merge documents, and create tables and charts; (5) demonstrate their knowledge and skills to utilize Microsoft Excel to create and edit spreadsheets, manage large notebooks, and create and print graphs; (6) create a simple database using Microsoft Access; (7) use Microsoft Outlook to send, organize, compose, edit, and merge messages; and (8) use Internet Explorer and a variety of search services to locate and evaluate resources.

Assessment of technological competency occurs at the freshman level mainly in two courses—BUED 212 (Computer Concepts) and CDSP 120/121 Introduction to Computing—offered by the Departments of Business Management and Accounting, and Math and Computer Science, respectively. BUED 212 introduces students to electronic information processing. Emphasis in this course is placed on various computer concepts and applications. Contemporary computer software for word processing, spreadsheets, and databases relevant to business and industry are explored. CDSP 120/121 is designed for non-technical majors covering different applications of modern computing systems. The course surveys computing hardware and software systems and introduces students to the present state-of-the-art word processing, spreadsheet, and database software. Applications to other disciplines, such as medicine, administration, accounting, social sciences, and humanities are also considered. In addition, students are increasingly required to utilize technology in programs, such as In-Site and WebCT in their writing. The primary means of communication and the location of information is, in today's world, cybernetic rather than manual. Students are able to access and utilize the necessary programs to complete successfully assignments and requirements, as well as successfully complete online courses. In addition, students receive support from the Instructional Technology lab staff/faculty on as-needed-basis. In order to collect baseline data on entering freshmen with respect to their prior and current usage of technology, a 60-item survey was administered in the fall of 2005 to 120 students. Student current usage of technology results of the survey are presented in Table 2. It is clear from Table 2 that, while student usage of MS Word and Email are strong, there is less usage of other applications (Excel, MS Access, Desktop Publishing and PowerPoint).

According to overall findings, 83% of the participants studied computers in high school; 90% have studied keyboarding; and 60% have experience with computer programming. Twenty-eight percent reported having experience creating websites. Most of the participants (74%) rated themselves as intermediate computer users, with 18% rating themselves as a novice, and only 8% as an expert. In terms of computer ownership, the participants reported a 74% rate of computer ownership, with 83% having had a computer at home during high school, and 65% having had a computer at home during middle school. The primary location for Internet access was the UMES campus for 58.9%, compared to 1.5% who seek access at work, and 38.3% who primarily obtain access at home. The most frequent online activities were reported as: 38% email; 23% school work; 14% instant messaging; and 11% surfing. Much progress has been made concerning the number of students taking web courses since fall 2004 when the enrollment in such courses was 84. In fall 2005 this number increased to 112 (increase of 33.3%) and 282 in fall of 2006, an increase of 235.7% over three-years.

Based on the survey analysis, it was determined that students entering UMES are coming with less technology experiences than had traditionally been estimated. As a result, both courses (i.e., BUED 212 and CDSP 120/121) are being redesigned. Desktop publishing using MS Word and Website design using FrontPage are being added. Additionally, calendar features and meeting scheduling using Microsoft Outlook are also being added. Also, consistent with the spirit of strengthening General Education, a common comprehensive exam to be used across courses is being developed. An enhanced rubric for evaluating student projects is also being introduced across sections. The comprehensive student portfolio is being expanded and introduced across sections and the rubric used to assess student portfolios is being enhanced to better reflect course student learning outcomes. The need for greater faculty training in portfolio-based instruction has also been identified and appropriate steps are being taken to provide adequate professional development for faculty.

Information Literacy

Information literacy at UMES is defined as the provision of a framework, which enables students/library patrons to identify, retrieve, evaluate, and use information effectively and efficiently. It includes social, legal, and economic issues surrounding the use of information. After receiving instruction and supporting service, students acquire the skills necessary to succeed in academic and/or professional arenas by building a framework for lifelong learning. Thus specific learning outcomes for students in this competency include students' ability to identify, retrieve, evaluate, and use information effectively and efficiently.

Students are provided instruction in LIBR100, currently an elective one credit online course. In this course students cover seven units, including Introduction and Learning about the Library, Beginning Your Research, Reference Tools, Selecting Resource Tools, Using Online Databases, Learning about the Internet, and Using Information Ethically (see Appendix 5A). Instruction is provided through Library Instruction Sessions, which are individual course related and requested by classroom faculty to meet class needs but taught by librarians.

Due to staffing constraints, pretest and final exam results have not been analyzed since LIBR 100 was introduced in the spring of 2006. More systematic assessment data need to be collected to

determine effectively the degree to which information literacy learning outcomes have been met. Data from surveys of students who received library instruction through both LIBR 100 and on an as-needed-basis have been analyzed for Spring 2006 and Fall 2006. Findings indicate that most students were “confident” or “very confident” in their ability to use library services and resources. Overall, 90% of responding students rated units in LIBR 100 as “good” or “excellent.” Approximately, 83% “agreed” or “strongly agreed” with factors relating to course organization (suitable information/units understandable/enough time allotted for assignments/directions for assignments). Overall rating of unit assignments and quizzes as “Just Right” was 90%. However, responses to the three open ended questions were varied and were used to make some of the changes in assessment procedures.

Based on the comments in the open-ended items of the survey, changes have been made, including additional material to the units on plagiarism, clearer directions for assignments, changes to formats for some online quizzes for ease of submission, and the unit on Using Key Reference Tools was simplified.

MHEC Staff Review of 2007 Student Learning Outcomes Assessment Report

The **University of Maryland, Eastern Shore** continues to develop its assessment infrastructure. In December 2006, the university began its General Education Curriculum Review and Assessment of Student Learning. A discussion of the review’s framework, as well as a timeline for the review process, are included in the report.

UMES has defined the four general education competencies; the report also discusses the direct and indirect measures used to assess student learning outcomes. These include assessment at the course and program levels.

Results—and how these results are being used to improve learning—are discussed. For example, UMES students take the English Proficiency Exam (EPE) after their ENGL 101 and 102 sequence to validate progress in written communication. Exam results are discussed for the years 2004-2006; it is clear that “current course learning outcomes for ENGL 101 and ENG 102 are being met.” Tutoring is made available for unsuccessful students.

Based on results from assessment of scientific reasoning, Natural Science faculty proposed the redesign of basic Chemistry courses. Approval for redesigning CHEM 111 (Principles of Chemistry) has been granted by the University System of Maryland in collaboration with the National Center for Academic Transformation and UMES has committed \$20,000 to the project.

University of Maryland University College

Institution's Executive Summary of 2007 Learning Outcomes Assessment Report

This Progress Report on Student Learning Outcomes 2004-2007 (SLOAR) provides an update on the continuing implementation of undergraduate student learning assessment efforts at University of Maryland University College (UMUC). This is a triennial report that details how ongoing learning assessment practices at UMUC are affecting improvements in instructional practice and student achievement consistent with expectations defined by the Middle States Commission on Higher Education (MSCHE) and Maryland Higher Education Commission (MHEC).

This report is organized around the core competency areas mandated by MHEC to be assessed by all colleges and universities in Maryland. These mandated core competency areas are: 1) critical analysis and reasoning, 2) technological competence, 3) written communication, 4) quantitative reasoning, 5) scientific reasoning, and 6) oral communication. The report presents the UMUC definitions, identifies key assessment activities, summarizes available findings resulting from assessment activities, and presents use of available findings for each core competency area.

OVERVIEW OF INSTITUTIONAL PROGRESS (2004-2007)

Since submitting the 2001-2004 SLOAR (July 2004), UMUC has continued to demonstrate progress with the assessment of undergraduate student learning. The following major themes have characterized progress over the last three years:

- 1) **Review from the 2006 Middle States Evaluation Team** – In Spring 2006, the Middle States Evaluation Team visited UMUC as part of the institutional self-study and decennial re-accreditation process. The culminating report of the evaluation team commended the UMUC Institutional Plan for the Assessment of Student Learning Outcomes as “central to the five-year Strategic Plan. ...well documented and very-detailed in laying out implementation.”
- 2) **Continued Refinement of the UMUC Institutional Plan for the Assessment of Student Learning Outcomes** – Since the 2001-2004 SLOAR (July 2004), updates to the institutional plan have focused on clarifying processes and procedures, refining implementation timelines, creating dissemination charts, and defining assessment terms. The most recent update integrated detailed school-level plans for making use of learning assessment data within the School of Undergraduate Studies (SUS) and Graduate School of Management and Technology (GSMT). Importantly, the UMUC Institutional Plan for the Assessment of Student Learning Outcomes also provides the stated student learning outcomes for every UMUC degree program.
- 3) **Collection and Analysis of Data Using Reliable Assessment Tools** – Since the 2001-2004 SLOAR (July 2004), UMUC has implemented many institutional processes to collect and analyze reliable student learning data. These processes have included conducting a review of each institutional-level assessment tool and documenting how each tool links to a given

core competency area. After each institutional-level assessment, official reports that describe analyses and results are prepared and disseminated university-wide.

SUMMARY OF KEY CORE COMPETENCY RESULTS (2004-2007)

UMUC has various ongoing and/or planned assessment efforts at the institutional-level, program-level, and course-level. A summary of activities and results for each specific core competency area is as follows:

1) Critical Analysis and Reasoning – For two consecutive academic years (AY 05-06 and AY 06-07), UMUC has used an assessment tool entitled the Measure of Academic Proficiency and Progress (MAPP) Test to assess institutional-level student learning in the area of critical analysis and reasoning (i.e., critical thinking). The AY 05-06 administration was considered the baseline administration and a large sample of UMUC students (N=5645) was selected and assessed. The comparative AY 06-07 assessment involved a smaller sample of UMUC students (N=2512). For both AY 05-06 and AY 06-07, the performance of UMUC examinees was compared to the performance of the ETS Comparison Group. The ETS Comparison Group was comprised of all Masters I/II colleges and universities having previously administered the assessment at the time of the annual comparison.

Results from AY 06-07 deemed seven percent (7%) of UMUC examinees proficient in critical thinking compared to four percent (4%) of UMUC examinees in AY 05-06. This improvement in performance was statistically significant. Importantly, the improved proficient performance in critical thinking skills from AY 05-06 to AY 06-07 resulted in higher proficiency among UMUC examinees than that of the ETS Comparison Group. In addition to outperforming the ETS Comparison Group in overall proficiency, UMUC examinees in AY 06-07 also outperformed the ETS Comparison Group at each year of study except the senior year where proficient performance was equal. Additional key findings in critical thinking skills from AY 05-06 and AY 06-07 include, but are not limited to, the following:

- Male students outperformed female students. Comparisons by gender were statistically significant in both AY 05-06 and AY 06-07.
- White students outperformed all other racial/ethnic categories. Comparisons by race/ethnicity were statistically significant in both AY 05-06 and AY 06-07.
- Proficient performance was positively correlated with a higher cumulative grade point average. Comparisons by cumulative grade point average were statistically significant in both AY 05-06 and AY 06-07.
- Online students in ENGL 391 (Advanced Expository and Research Writing) achieved higher percentages of proficiency in critical thinking skills when compared to face-to-face students in the same course. Comparisons by course delivery format were statistically significant in AY 05-06. However, comparisons by course delivery format were not statistically significant in AY 06-07 implying no performance difference when considering course delivery format.

2) Technological Competence – UMUC uses a locally developed examination, entitled the Fluency in Technology (FIT) Exam, to assess institutional-level performance in the area of technological competence. The FIT Exam is administered as the final exam in IFSM 201 (Introduction to Computer Based Systems). The FIT Exam was developed in consideration of the Board of Regents definition of technology fluency and established institutional criteria that ensure alignment of the assessment with UMUC expectations for reliable institutional-level assessment tools. Baseline institutional-level student performance data in the area of technological competence was gathered in Spring 2006 using the FIT Exam. The Spring 2006 administration of the FIT Exam gathered data from thirty-four (34) course sections of IFSM 201 offered in UMUC-Adelphi during that semester. Results were analyzed for 662 students (N=662). Student performance was categorized into one of four mutually exclusive performance levels (i.e., Exceeds Expectations, Meets Expectations, Meets Expectations at a Minimal Level, and Does Not Meet Expectations).

Results revealed that the majority of students (54%) achieved the Exceeds Expectations (19%) or Meets Expectations (35%) performance level in technological competence. In comparison, twenty-eight percent (28%) achieved the Meets Expectations at a Minimal Level performance level and twenty percent (20%) demonstrated performance classified as Does Not Meet Expectations in technological competence. Beyond analysis of overall student performance, statistically significant results supported other key conclusions in the area of technological competence that included, but were not limited to:

- Male students scored significantly higher than female students.
- White students and Native American students scored significantly higher than any other racial/ethnic category.
- Students aged 18-24 scored significantly lower than any other age grouping while students aged 39+ scored significantly higher than any other age grouping.
- Students with a cumulative grade point average of 3.00 and above scored significantly higher than students with a cumulative grade point average below 3.00.
- Students pursuing a major within the Department of Computer Information Systems and Technology scored significantly higher than students pursuing a major in other academic departments.

Given the nature of the UMUC learning environment, student performance was also analyzed by course delivery format (i.e., whether the specific IFSM 201 course was delivered face-to-face or online). Results revealed that nearly sixty percent (57.7%) of students in online course sections of IFSM 201 achieved the Exceeds Expectations or Meets Expectations performance level. Comparatively, less than one third (32.4%) of students in face-to-face course sections achieved the Exceeds Expectations or Meets Expectations performance level. Differences in performance by course delivery format were statistically significant.

3) Written Communication – For two consecutive years (AY 05-06 and AY 06-07), UMUC has used the assessment tool entitled the Measure of Academic Proficiency and Progress (MAPP) Test, formerly called Academic Profile, to assess institutional-level student learning in the area of written communication. The AY 05-06 administration was considered the

baseline administration and a large sample of UMUC students (N=5645) was selected and assessed. The comparative AY 06-07 assessment involved a smaller sample of UMUC students (N=2512). For both AY 05-06 and AY 06-07, the performance of UMUC examinees was compared to the performance of the ETS Comparison Group. The ETS Comparison Group was comprised of all Masters I/II colleges and universities having previously administered the assessment at the time of the annual comparison.

With regard to overall performance in written communication, UMUC students demonstrated a decline in proficient performance at Level 1 writing skills (basic writing skills) from AY 05-06 to AY 06-07. Student proficiency in more advanced writing skills (Level 2 writing skills and Level 3 writing skills) increased over the same period. While the majority of UMUC examinees were proficient in Level 1 writing skills in both AY 05-06 and AY 06-07, there was a decline in overall institutional performance from Level 1 to Level 3 in both years. However, this pattern of decline from Level 1 to Level 3 was consistent with the pattern of performance of the ETS Comparison Group.

In both AY 05-06 and AY 06-07, UMUC performance in writing skills was somewhat below the ETS Comparison Group. With regard to difference, gaps in proficient performance were greatest at Level 1 where UMUC performed below the ETS Comparison Group by ten percent (10%) in AY 05-06 and fifteen percent (15%) in AY 06-07. However, proficient performance differences between UMUC and the ETS Comparison Group at Level 2 were minor and greatly improved from AY 05-06 (difference of 6%) to AY 06-07 (difference of 1%). At Level 3, differences in proficient performance were also minor and improved from AY 05-06 (difference of 3%) to AY 06-07 (difference of 2%).

Given the online nature of UMUC coursework, analyses of selected courses were conducted to compare the proficiency of students within online course sections to the proficiency of students within face-to-face course sections. In most instances, higher percentages of online students achieved proficiency when compared to percentages of face-to-face student who achieved proficiency. Most such comparisons revealed statistically insignificant findings implying no learning difference in course delivery format. However, for AY 05-06, the comparison of delivery format for ENGL 101 was statistically significant at Level 2 writing skills and Level 3 writing skills, as well as the comparison of delivery format for COMM 393 at Level 2 writing skills and Level 3 writings skills. For these significant findings, the performance of online students in ENGL 101 and COMM 393 was significantly higher than the performance of face-to-face students in the same courses.

- 4) **Quantitative Reasoning** – For two consecutive years (AY 05-06 and AY 06-07), UMUC has used the assessment tool entitled the Measure of Academic Proficiency and Progress (MAPP) Test, formerly called Academic Profile, to assess institutional-level student learning in the area of quantitative reasoning. The AY 05-06 administration was considered the baseline administration and a large sample of UMUC students (N=5645) was selected and assessed. The comparative AY 06-07 assessment involved a smaller sample of UMUC students (N=2512). For both AY 05-06 and AY 06-07, the performance of UMUC examinees was compared to the performance of the ETS Comparison Group. The ETS Comparison Group

was comprised of all Masters I/II colleges and universities having previously administered the assessment at the time of the annual comparison.

In quantitative reasoning, a decline in performance of eleven percent (11%) was demonstrated at Level 1 (basic mathematics skills) in that thirty-five percent (35%) of AY 06-07 examinees were deemed proficient compared to forty-six percent (46%) of AY 05-06 examinees. At Level 2, performance remained constant with nineteen percent (19%) proficiency in both AY 05-06 and AY 06-07. At Level 3 (most advanced mathematics skills), only slightly fewer AY 06-07 examinees were proficient than AY 05-06 (5% compared to 6%).

While the performance of UMUC examinees was equal to or lower than the performance of the ETS Comparison Group in both AY 05-06 and AY 06-07, performance differences between the two groups decreased with each level. In AY 05-06, the difference between the UMUC examinees and the ETS Comparison Group was ten percent (10%) at Level 1 while the difference was only eight percent (8%) at Level 2. At Level 3, the two groups performed equally in AY 05-06. In AY 06-07, the difference between the UMUC examinees and the ETS Comparison Group increased to twenty-one percent (21%) at Level 1 while the difference at Level 2 remained the same at eight percent (8%). At Level 3, the two groups performed almost equally in AY 06-07 with a difference in proficiency of only one percent (1%).

- 5) **Scientific Reasoning** – UMUC has created a locally developed exam, entitled the BIOL 101 Final Exam, to assess institutional-level performance in the area of scientific reasoning. The BIOL 101 Final Exam was developed in consideration of established institutional criteria that ensure alignment of the assessment with UMUC expectations for reliable assessment tools. The BIOL 101 Final Exam is administered within BIOL 101 (Concepts in Biology). During Fall 2006, the BIOL 101 Final Exam was piloted within UMUC-Adelphi using a sample of online and face-to-face sections. Incorporating feedback from the Fall 2006 pilot, the BIOL 101 Final Exam was standardized as the final exam across all BIOL 101 sections in UMUC-Adelphi during Spring 2007 (both online and face-to-face). Student results from Spring 2007 will be analyzed in Summer 2007.
- 6) **Oral Communication** – Given the online nature of UMUC academic programming, UMUC administrators are in discussion with both MHEC and MSCHE official regarding this core competency area. Discussion is centered on either establishing a strategy feasible and scalable for implementation in the online setting or for exempting UMUC from this core competency area. Importantly, oral communication is the only mandated MHEC competency area where systemic plans for learning assessment are not currently underway.

CONCLUSION

UMUC has implemented a learning assessment initiative that will ensure continuous improvement of teaching and learning at UMUC. This report provides an overview and analysis of the assessment process and summarizes the available findings and resulting actions from assessment activities completed during 2004-2007. The report provides comprehensive and

specific details for how available student learning data in each core competency area are being used to improve UMUC resources, programs, and instructional practice.

MHEC Staff Review of 2007 Student Learning Outcomes Assessment Report

An Institutional Plan for the Assessment of Student Learning Outcomes provides the framework for the **University of Maryland University College's** assessment activities. UMUC notes that a visiting Middle States Evaluation Team (in spring 2006) found their assessment plans to be "well documented and very detailed in laying out implementation."

UMUC defines all four general education outcomes, along with undergraduate-level expected (specific) outcomes. The methods used for assessment are discussed in detail; results and assessment analysis are also included. UMUC does not currently assess oral communication "[g]iven the online nature of UMUC academic programming."

UMUC uses the Measure of Academic Proficiency and Progress (MAPP) to assess students' critical analysis and reasoning, written communication, and quantitative reasoning skills. Results from recent administrations are provided and discussed.

Examples of how assessments have been used at UMUC are also discussed. One example concerns technological competency, called technology *fluency* at UMUC. All degree-seeking students must take IFSM 201, a three credit course. The course ends with a locally developed exam: the FIT (Fluency in Technology) exam. While spring 2006 was considered the baseline semester for gathering results data, revision of the IFSM curriculum has already begun. A revised course will be ready for spring 2008, better addressing those areas of weakness found through the spring 2006 FIT exam.

Morgan State University

Institution's Executive Summary of 2007 Learning Outcomes Assessment Report

At Morgan State University, assessment is a university-wide responsibility and involves all segments of the University. The University's mission calls for on-going, systematic and regular assessment of how well the University is fulfilling its mission in all respects and for special emphasis on the assessment of student learning, which is foremost in its mission. The University's new Strategic Plan (2007-2011) provides for even more comprehensive and systematic assessments in the future.

Morgan State University's Comprehensive Assessment Plan for Student Learning and Institutional Effectiveness was published in September 2005 as part of the University's strong commitment to the ongoing assessment of its effectiveness as outlined in the University's mission statement and as is required by Standard 1, Standard 2, Standard 7 and Standard 14 of the Middle States Commission on Higher Education's Characteristics of Excellence in Higher Education. In addition, the Comprehensive Assessment Program promotes the Bald Criteria for Performance Excellence which require a strong culture of assessment that relies upon clearly communicated vision and values and effective measurement, analysis and management of information, which will lead to efficient resource, process, and organizational management and effective planning to achieve the vision and values of the University. The Baldrige framework is being used for Morgan's Middle States Self-Study which currently is underway.

In order to implement these principles, plans are underway to develop an Office of Assessment. This office will be responsible directly to the President of the University and will be assisted by an Assessment Advisory Committee. In addition each division of the University will also have an individual assigned responsibility for coordinating assessment within the division.

University-Wide Assessment with Nationally-Normed Instruments

Currently, Morgan State University is one of the few universities nationwide that participates both in the *Collegiate Learning Assessment* and the *National Survey of Student Engagement*.

The *Collegiate Learning Assessment* is a nationally-normed examination that provides colleges and universities with information about their students' ability to think critically, reason analytically, solve realistic problems and write clearly. As such it embodies the majority of competencies required by Middle States. The *Collegiate Learning Assessment* is a direct measure of student learning that uses a sample of freshmen and seniors on a three hour examination. This assessment allows universities to measure the "value added" by the campus to student academic achievement. The examination consists of performance tasks requiring students to use "an integrated set of critical thinking, analytic reasoning, problem solving, and written communications skills to answer open-ended questions about a hypothetical but realistic situation." The examination also includes two types of analytic writing tasks; (1) "Make an Argument" which requires students to support or reject a position, and (2) "Critique an Argument" which requires students to evaluate the validity of an argument. The University's

actual CLA score is compared to its expected CLA score. Expected scores are derived from the relationship of the University's average SAT score and its average CLA score.

Results for Morgan State University show that while the freshmen who took the examination performed below the level expected, the seniors who took the examination performed at the level expected. The freshmen-to-senior value added was at the level expected.

The Office of Institutional Research administers the *National Survey of Student Engagement*. Morgan has participated in this indirect measure of student learning for the past three years. Survey results indicate that while Morgan freshmen are on par with their counterparts at the University's Carnegie peers and nationally on the benchmark comparison of the level of academic challenge, Morgan seniors experience greater academic rigor than their counterparts at peer institutions and nationally. The Level of Academic Challenge is defined as "challenging intellectual and creative work is central to student learning and collegiate quality. Colleges and universities promote high levels of student achievement by emphasizing the importance of academic effort and setting high expectations for student performance." Items on the survey that address this include (1) preparing for class; (2) number of assigned textbooks, books or book-length packs of course readings; (3) number of written papers or reports of 20 pages or more; number of written papers or reports of between 5 and 19 pages and number of written papers or reports of fewer than 5 pages; (4) coursework emphasizing analysis of the basic elements of an idea, experience or theory; (5) coursework emphasizing synthesis and organizing of ideas, information, or experiences into new, more complex interpretations and relationships; (6) coursework emphasizing the making of judgments about the value of information, arguments or methods; (7) coursework emphasizing application of theories or concepts to practical problems or in new situations; (8) working harder than you thought you could to meet an instructor's standards or expectations; and (9) campus environment emphasizing time studying and on academic work. The table below illustrates these results.

Level of Academic Challenge Mean Comparisons			
Freshmen	2004	2005	2006
Morgan	53.6	49.8	49.4
Peers	52.6	51.7	51.9
NSSE	53.6	52.6	51.8
Seniors			
Morgan	57.7	56.7	60.8
Peers	56.8	56.0	55.8
NSSE	57.6	56.5	55.8

Specialized Assessments and Subject Area Assessments

In addition to these University-wide assessments, each department assesses its students through a comprehensive examination or culminating project required for graduation and given during the senior year. Departments typically develop their own senior comprehensive examinations, but a few use nationally-normed examinations such as the Educational Testing Service Major Field Tests. Results of these examinations are used internally to improve teaching and the curriculum.

General Education Program Objectives and Student Learning Goals

Morgan's General Education Program embraces the areas of competency specified in the Middle States Association's Characteristics of Excellence in Higher Education, and it incorporates its emphasis on assessing student learning and institutional effectiveness. The General Education Program's consonance with these standards is reflected in six of its program objectives, which are to provide: (1) "required courses in language arts skills, critical thinking skills, mathematics and computational skills and computerization, arts and humanities, social and behavioral sciences, biological and physical sciences, the African and African-American heritage, health and physical education, and orientation to college"; (2) "a network of placement, diagnostic, exit and proficiency testing to ensure student persistence and competency in and transit through the General Education Program"; (3) "a focus on the freshman and sophomore years and establishment of threshold knowledge and skills are prerequisites for advancement to junior and senior level work"; (4) "reinforcement of general education knowledge and skills in junior and senior level studies, including a writing-reading-speaking-critical-thinking-across-the-curriculum program"; (5) "a system of monitoring and measurement to ensure that objectives and expectations are being met"; and (6) "periodic assessment of the General Education Program to ensure its consistency with the needs of the University and the larger community" (Morgan State University Catalog, 2006-2009, pages 72-73).

The program also sets a number of clearly defined learning goals for students that reflect the five competencies in Standard 12 of the Middle States Association accreditation criteria. According to six of the 13 "Goals for Morgan Students" outlined in the University catalog, students are expected: (1) "to read and listen with understanding and express themselves effectively in written and spoken standard English"; (2) "to think critically and analytically"; (3) "to gather information through research and use of the library and report that information responsibly"; (4) "to solve mathematical and computational problems"; (5) "to demonstrate knowledge of problem-solving methods and of the historical development, present-day applications and cross-disciplinary connections of mathematics and information structures"; and (6) "to demonstrate integrated knowledge of problem solving techniques in the basic concepts and principles of the biological and physical sciences, of the history and philosophy of science, and of ecological, personal, and social issues related to the sciences" (Morgan State University Catalog, 2006-2009, page 73).

To meet these learning goals, Morgan students must take, among the 46 credits of general education courses required, the following competency-based courses: six credits of freshman writing (including research); three credits of critical thinking; eight credits of biological and physical sciences; three or four credits of mathematics; and two credits of computer literacy. They must also pass a sophomore level Speech Proficiency Examination and a junior level Writing Proficiency Examination. Following Morgan's definition of each competency is a chart that provides the percentage of students passing, with a grade of C or better, each course for fall 2006.

Morgan State University defines competency in written communication as (1) being able to write multi-paragraph essays with a properly constructed introduction, including a clear thesis; no

fewer than three paragraphs in the body of the essay; a definite method of development; a conclusion; and demonstrated mastery of grammar, punctuation, mechanics and sentence structure; and (2) being able to write a documented paper (long essay) based on research in the library and other technology-based information resources and following the proper research and composition procedures, inclusive of choosing and limiting a subject; preparing a bibliography; taking notes; drawing reasonable conclusions; organizing notes; preparing a rough draft and allowing for several stages of revision; constructing a précis; successfully incorporating outside research sources in proper style; preparing a works-cited page; and preparing and editing the final document.

Assessment of individual student written communication is embedded in the courses, in department-generated exit examinations that are used in the courses, and in the Writing Proficiency Examination taken at the junior year. Results of the most recent Writing Proficiency Examination administered during Academic Year 2006-2007 indicate that 70% students passed the examination.

Morgan State University defines competency in oral communication as (1) correctness in articulation, including pronunciation, enunciation, tone, rate, emphasis and audience contact; (2) effectiveness in oral reading; and (3) effectiveness in extemporaneous speaking. Sophomores at Morgan State University are required to pass the Speech Proficiency Examination. The Speech Proficiency Examination coordinator estimates that the passing rate for this exam is 98% for the current academic year.

Morgan defines competency in scientific and quantitative reasoning as understanding and employing the philosophy of science and the problem-solving scientific method; understanding the fundamental concepts of the disciplines (biology, chemistry, mathematics, physics), and being able to employ college-level mathematical skills in reasoning through problem solving.

The School of Computer Science, Natural Sciences and Mathematical Sciences offers a number of General Education requirement courses. These include Biology 101 (“Introduction to Biology I”), Biology 102 (“Introduction to Biology II”), Biology 105 (“Introductory Biology for Majors”), Chemistry 101 (“General Chemistry”), Physics 101 (“Introductory Physics”), Physics 203 (“General Physics”), Physics 205 (“College Physics”), Mathematics 109 (“Mathematics for the Liberal Arts”), Mathematics 111 (“College Algebra”), Mathematics 113 (“Introduction to Mathematical Analysis I”) and Mathematics 114 (“Introduction to Mathematical Analysis II”). Exit examinations are given in each of these classes.

Morgan State University defines critical analysis and reasoning competency as: (1) being able to analyze arguments’ logical validity, (2) being able to compose logically valid arguments; (3) being able to understand the nature, classes and forms of propositions; (4) being able to understand the nature and forms of deductive and inductive reasoning; and (5) being able to understand formal and informal fallacies. The course is Philosophy 109 (“Introduction to Logic”).

Morgan defines technological competency as the understanding of the basics of computer operations, the broad-based use of technology in learning and living, the impact of technology

on society and social behavior, and the challenges that technology presents to human values. Its approach is interdisciplinary, not just technical, and it embraces students' use of technology in their majors. The course is General Education 201.

Morgan State University defines information literacy as the ability (1) to seek out and retrieve information, whether from the library or from other sources made possible by modern technology; (2) to decode that information through reading, listening, viewing, or a combination of these methods; (3) to reflect critically and analytically, sometimes scientifically and quantitatively, on the information; and (4) to express that information, along with ideas, interpretations of it and reflections about it, effectively in written and spoken standard English.

Information literacy is assessed during freshmen year through a graded research paper required in English 102 ("Freshmen Composition II") and in courses throughout all the schools and colleges of the University through graded research papers.

The table below shows the percent of students passing the General Education courses with a grade of C or better for fall 2006.

English 101	71.46%
English 102	64.13%
Humanities 201	72.83%
Humanities 202	78.63%
Biology 101	61.70%
Biology 102	71.93%
Biology 105	54.31%
Chemistry 101	55.19%
Chemistry 105	47.05%
Chemistry 110	76.38%
Mathematics 109	73.97%
Mathematics 112	71.43%
Philosophy 109	63.15%
General Education 201	88.98%

MHEC Staff Review of 2007 Student Learning Outcomes Assessment Report

Morgan State University published a Comprehensive Assessment Plan for Student Learning and Institutional Effectiveness in September 2005. In addition, "plans are underway to develop an Office of Assessment" to help facilitate the 14 principles undergirding the assessment plan.

All four general education competencies have been defined. Morgan assesses student learning outcomes at the course, program, and institutional levels. At the course level, for each competency, the relevant course pass rates are provided as an indirect measure of assessment. At the program level, each department assesses its students through a comprehensive

examination or culminating project required for graduation and given during the senior year. Departments typically develop their own senior comprehensive examinations, but a few use nationally-normed examinations such as the Educational Testing Service Major Field Tests. At the institutional level, Morgan requires the Writing Proficiency Examination of all students during their junior year to assess writing competency; it also administers the Collegiate Learning Assessment (CLA) and the National Survey of Student Engagement (NSSE). The CLA, given to freshmen and seniors, assesses “value added” in the area of critical analysis and reasoning. The report states that assessment results are communicated to the University community and are used internally to improve teaching and the curriculum. No specific examples of ways in which assessment results have improved teaching and learning are given.

St. Mary's College of Maryland

Institution's Executive Summary of 2007 Learning Outcomes Assessment Report

St. Mary's College of Maryland has many assessment activities in place for the ongoing monitoring and guidance of its programs and operations. This report summarizes those activities with a focus on the five competencies related to general education and essential skills that are used in the Middle States accreditation process. The College's full report describes how each competency is assessed at St. Mary's. This executive summary provides a brief overview of those assessment activities.

Assessment at St. Mary's: Curricular Impact

During the past two years, the faculty of St. Mary's College have worked diligently to shape a new core curriculum. The revision of the core was undertaken in response to the analysis of several assessments, including the National Survey of Student Engagement (NSSE). The new core curriculum will have, at its center, a focus on the development of written and oral communication skills, critical thinking, and information literacy.

All entering first-year students will take a seminar, and it is during this first-year seminar that students will be assessed for baseline skills and competencies. Departments will determine where they intentionally teach core skills within their disciplines, how they develop students' skills over their college career, how they will assess students' levels of proficiency at entry to the major, and how they will determine whether or not students have met exit levels for these skills appropriate to their majors. The first step in this process is that departments will complete a "skills inventory," after which they will have to determine a plan for filling gaps in their curriculum, assessment, and use of assessment results for ongoing curricular revision. We are also planning to create a system of portfolio and benchmark assessments that will allow us to better determine how well students meet skills outcomes at varying points in the curriculum.

We provide this prefatory material to show that St. Mary's is engaged in the kind of assessment that will become routine in the College's curriculum development and revision cycle. The examples provided reflect our efforts to improve attention to student outcomes within our existing curricular framework—but much is changing because of our evaluation and reflection on what we want students to know, value, and be able to do by the end of their college career.

Assessment at St. Mary's: The Five Competencies

1. Written and Oral Communication.

Both direct and indirect measures indicate that our students achieve declared criteria for competency in written and oral communication. Moreover, students and alumni report that St. Mary's has had a positive impact on their abilities to write and speak clearly. Comments in some alumni surveys, however, indicated a need for a greater emphasis upon public speaking, and this type of input helped inform the curricular revisions described above.

2. Scientific and Quantitative Reasoning.

Both first-year students and seniors report that the St. Mary's experience has had a positive impact on their scientific and quantitative reasoning. These self-reports are consistent with obtained direct measures. For example, the Department of Biology conducts pre- and post-measures of student skills that document that the level of competence in scientific reasoning and ability to use technology improves dramatically as students move through the major. Such levels of satisfaction and measures of achievement are not surprising given that this component of the general education curriculum has been monitored and adjusted for years. Even so, we will continue to monitor this aspect of our general education program and always search for ways to more effectively provide training in scientific and quantitative reasoning.

3. Critical Analysis and Reasoning.

Graduating seniors and alumni are nearly unanimous in claiming that a St. Mary's education had a positive impact on their critical analysis and reasoning abilities. Given the importance of these skills within in our liberal arts mission, however, the faculty have developed a new core curriculum that will teach in explicit and intentional ways the skills necessary to reason critically and to study a topic in depth using the tools of an academic discipline. Additionally, several departments have developed surveys tied to their curricular goals and have engaged in curricular revision as a result of the analysis of their students' performance on senior projects. The main report provides examples of how the results of assessment activities have been used in the Art, Economics, and Philosophy and Religious Studies departments.

4. Technological Competency.

Although technological competency is not a goal of the general education curriculum at St. Mary's College of Maryland, students become well acquainted with the uses of technology as they pursue their studies. Furthermore, technological competency is a core student learning outcome for some majors, and students are expected to demonstrate their skills in order to be successful in the culminating senior project. Examples are provided from the departments of Educational Studies and Biology. Indirect evidence of achievement is also provided by survey results (NSSE, Senior Exit Survey, and 1-, 5-, and 10-year-out Alumni Surveys) that report the College's impact on the abilities to appreciate and utilize changing technologies.

5. Information Literacy.

Although information literacy has not been a goal of the general education program at St. Mary's College of Maryland, the positive evaluations received in survey research and direct measures provided by student projects provide some assurance that this important aspect of the College's educational programs is generally successful in meeting the needs of our students. The new core curriculum will focus on information literacy as one of the four key skills that students will begin to develop in their first-year seminar and continue to hone during their subsequent studies.

Conclusions

Although St. Mary's College of Maryland has had an array of assessment activities in place for years, the College is moving forward with increased emphasis upon assessment. The Provost requires each academic department to devise assessment strategies for their discipline. With these efforts underway, assessment activities will achieve even greater prominence at St. Mary's

College of Maryland. Indeed, the College has already committed to the hiring of a new “Dean of the First Year Experience and Core Curriculum,” and this individual will be charged with implementation, ongoing administration, and assessment of the core curriculum. The campus community is developing a culture of curiosity—a culture in which faculty, staff, and administrators routinely ask, “Why are we doing what we are doing in the way we’re doing it, what are the results of our efforts, and what do we need to do differently in order to achieve our goals and help our students meet learning outcomes?”

MHEC Staff Review of 2007 Student Learning Outcomes Assessment Report

During the past two years, **St. Mary’s College of Maryland** has engaged in a process to “shape a new core curriculum.” This new curriculum focuses on “the development of written and oral communication skills, critical thinking, and information literacy.” A new first-year seminar will be piloted this coming fall semester. The process has also including the writing of new mission statement-based learning outcomes for the college; these are included in St. Mary’s report.

All four general education competencies are defined, as are various measures used to assess student learning. For each competency, results of indirect measures—such as the National Survey of Student Engagement (NSSE), a Senior Exit Survey, and alumni surveys—are provided.

Several examples of ways in which assessment of critical analysis and reasoning have been used to enhance learning are discussed. Many departments have undergone “curricular revision” as a result of assessment analysis. The Art Department, to cite just one example, has developed a new introductory course designed to foster critical thinking skills.

Since technological competency is not a primary goal of SMCM’s general education program, uses of assessment in this area are not discussed.