2004 Student Learning Outcomes Assessment Reports

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MARYLAND HIGHER EDUCATION COMMISSION

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Table of Contents

I.	Introduction	1
II.	Statewide Analysis: Learning Outcomes Assessment Activities	7
III.	Community Colleges: Executive Summaries and Commission Evaluation	19
IV.	Public Four-Year Colleges and Universities: Executive Summaries and Commission Evaluation	107
	Appendix	175

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 intersegmental 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.

Rationale for Progress Reports

Within the next few years, greater attention is likely to be given to the results of assessment activities as key stakeholders inquire about the quality of learning that is taking place in college. Accreditation organizations are asking campuses to provide information about the outcomes of assessment efforts. Middle States Commission on Higher Education (MSCHE) has revised its accreditation standards as they relate to the establishment of learning goals and the assessment of student achievement. Student outcomes, including the measurement of student learning, have been discussed as part of the Higher Education Act reauthorization in Congress. The National Forum on College-Level Learning recently conducted a national demonstration project, sponsored by the Pew Charitable Trusts, in which five states experimented with developing comparable learning measures. There is recognition in Maryland of the growing interest in this area. At the 2002 Governor's Conference on Higher Education, there was a consensus that assessment of student learning is not an optional activity.

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. Standard 14 of Middle States'

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Characteristics of Excellence in Higher Education states, "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."

Progress Report Guidelines

The workgroup that drafted the guidelines for the 2004 reports included faculty and staff from the public two- and four-year institutions that have considerable experience in the area of undergraduate learning outcomes assessment, as well as Commission staff. A representative of Middle States also participated on the workgroup. A consensus emerged early in the workgroup's deliberations to continue to tie the reports closely to the information which each campus prepares for its Middle States accreditation review.

The workgroup decided that these reports would focus on each of the five competencies related to general education and 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
- technological competency
- information literacy.

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 do assessment in this competency (examples provided in the Appendix)?

3. At what level(s) does assessment for this competency occur – courses, programs, and/or institutional?

4. Are results available for one or more of the assessment activities related to this competency? If so, please provide a summary of the results 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. Results may not be available for all assessment activities. In these cases, please indicate whether your institution intends to produce and release these outcomes in the future and its timetable for accomplishing this task.

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 describe the manner in which the assessment findings have contributed to these improvements. If there are reasons

that your institution has not yet used the assessment results to strengthen teaching and learning, please provide an explanation.

Examples of both direct and indirect assessment methods were supplied; these appear in the Appendix. If an institution had no current activities in one or more of the competencies, they were to acknowledge it in their report and discuss whether plans were being developed to do assessment in these areas in the future.

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 is presented in Sections III and IV.

Section II. Statewide Analysis of Student Learning Outcomes Assessment Activities

Maryland public colleges and universities made a strong effort to provide the information requested in the assessment report guidelines. The 2004 reports reveal that they are deeply engaged in the assessment of student learning outcomes. Implementing a permanent system of learning outcomes assessment at the course, program, and institutional levels (as Middle States advocates), takes time and resources. There is wide variation in the number of years Maryland public higher education institutions have spent developing outcomes assessment systems. The most experienced campuses have been working on this initiative for over ten years, while some have just started and are in the initial stages of training and building institutional assessment infrastructure. Many schools, in preparation for Middle States reviews, began by conducting a complete examination of their general education curriculums. The faculty-driven approach to assessment used by most Maryland institutions is a process requiring several steps, some of which include: clarifying and standardizing course level objectives, defining competencies (in many cases, developing institution-wide "core competencies"), selection and/or development of assessment methods (including pilot testing), administration of methods, data analysis, and using results to make changes to the curriculum to improve student learning. Many institutions stated that their ultimate goal has been not to just conduct learning outcomes measurement, but to create an institutional "culture of assessment."

In addition, the mission of each institution, as well as campus size and complexity, are factors that have influenced the wide variation in assessment activities discussed in the reports. It is important to keep in mind that the information contained in these reports describes only a fraction of the overall efforts that Maryland public colleges and universities are engaged in to assess student learning and, using assessment results, to improve the quality of the education that students receive.

In their assessment reports, many schools did not distinguish learning outcomes measures from other institutional accountability and/or process measures. Activities on the following list, while providing valuable insights, *do not represent learning outcomes:*

- score distributions of placement test results (such as ACCUPLACER), given to entering students)
- results of surveys of the employers of graduates
- 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
- analysis of characteristics of students within programs of study
- transfer rates of community college students to four-year colleges
- GPA performance of community college students in their first semester at a four-year college

While these and other institutional efforts were discussed at length in reports submitted by some campuses, only **those activities involving student learning outcomes assessment will be examined here.**

Community Colleges

Most of Maryland's community colleges began developing formal learning outcomes assessment systems four or more years ago. At this point, the vast majority has defined all general education competencies and is using learning outcomes assessment methods to measure them. Most institutions also reported assessment results as well as specific examples of how these have been used to improve teaching and learning.

Learning outcomes assessment takes place at the course level at all community colleges. Depending on the college's approach and historical experience, assessment at the program and institutional levels has been implemented. A complete system of learning outcomes assessment is currently in place at several institutions. Anne Arundel Community College and the Community College of Baltimore County have gone on to develop methods to assess student learning in online education (both colleges have piloted online assessment tools).

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

Direct Methods

- student writing samples/exams/presentations scored by rubric
- portfolio assessment
- capstone projects
- institution-developed proficiency tests
- institution-developed pre-post tests
- nationally-normed standardized proficiency tests
  - *ETS Academic Profile*: measures competencies in writing, critical thinking, and math
  - *ACT Collegiate Assessment of Academic Proficiency (ACT CAAP):* measures competencies in writing, math, scientific reasoning, and critical thinking

Indirect Methods of SLOA Used at Community Colleges

- grade distributions by course and program
- pass rates in general education courses and/or programs
- student exit surveys
- student course evaluation surveys
- alumni surveys
- nationally-normed standardized student surveys

In the competency areas for which assessment methods are still being developed and refined, in most cases, institutions provided institutional plans and timelines.

Written and Oral Communication

All community colleges have developed definitions for written and oral communication, and, in their reports, explained their direct and indirect methods of assessment and discussed levels at which the assessment occurred. Compared to assessment of all other general education competencies, systems for the assessment of writing appear to be the most developed. Eleven out of the sixteen community colleges assess writing proficiency by the direct method of evaluating writing samples by a rubric (modeled, in most cases, on the *Maryland Standards for a 'C' Paper* rubric approved by the Intersegmental Chief Academic Officers of Maryland's two- and four- year institutions in 1998). In addition, half of the colleges have used nationally-normed proficiency exams to assess writing (ETS Academic Profile and/ or ACT CAAP). Almost all provided assessment results; half gave examples of how results had improved teaching and learning.

Examples of Impact of Assessment Results on Teaching and Learning

- At Cecil Community College, evaluation of student capstone project presentations in Visual Communication led to increased course time spent practicing and helping students improve their oral communication skills.
- Carroll Community College, as a result of outcomes data, added a new course (Advanced College Writing) that will require a comprehensive research paper.
- College of Southern Maryland has expanded department-created online writing labs into multiple sections as a result of assessment.

Scientific and Quantitative Reasoning

All community colleges have developed definitions for scientific and quantitative reasoning. They explained their direct and indirect methods of assessment, and discussed levels at which the assessment occurred. Five of the sixteen colleges assess quantitative reasoning directly by using a rubric to score a common exam. Half have used nationally-normed proficiency exams (ETS Academic Profile and/or ACT CAAP). Almost all schools provided results; half provided examples of how results had improved teaching and learning.

Examples of Impact of Assessment Results on Teaching and Learning

- At Anne Arundel Community College, in response to results of a rubric-scored exam, faculty will introduce a math review in a basic Engineering course.
- At Community College of Baltimore County, the faculty has used direct assessment data (rubric-scored exams) to re-evaluate how the math department is meeting general education goals; "best practices" with respect to assignments and teaching strategies are being discussed.
- Wor-Wic Community College has scheduled faculty training in incorporating mathematics and scientific reasoning across the curriculum as a result of direct institutional assessment (GEA and ACT CAAP).

Critical Analysis and Reasoning

Almost all community colleges have developed definitions for critical analysis and reasoning. They explained their direct and indirect methods of assessment and discussed levels at which the assessment occurred. Three out of the sixteen institutions assess critical analysis directly using a rubric to score a common exam; eight have used nationally-normed proficiency exams (ETS Academic Profile and/or ACT CAAP). Over half of the schools provided results as well as examples of the impact of results on teaching and learning.

Examples of Impact of Assessment Results on Teaching and Learning

- At Community College of Baltimore County, assessment data (rubric-scored assignments and exams) have led faculty to incorporate a higher level of applied content, critical thinking, analysis, and synthesis activities.
- At Harford Community College, in response to rubric-scored course exam results, faculty are re-designing a programming course to include more work in which the students practice their problem-solving skills.
- Prince George's Community College has instituted a "critical thinking across the curriculum" effort as a result of Academic Profile test findings.

Technological Competency

Almost all community colleges have developed definitions for technological competency. They explained their direct and indirect methods of assessment and discussed levels at which the assessment occurred. One-quarter of the colleges assess critical analysis directly using a rubric to score a common exam. Over half provided results; one-third gave examples of how results had improved teaching and learning.

Examples of Impact of Assessment Results on Teaching and Learning

- Garrett College instituted faculty professional development activities emphasizing the integration of certain technologies (e.g., Blackboard, MS Office tools, GIS systems) to strengthen the technological competency of students.
- At Howard Community College, assessment-suggested changes that were made to the design projects in a course allowed students greater flexibility, more hands-on experience, and increased "out of the box" challenges.

Information Literacy

Sixty percent of the community colleges have developed at least draft definitions for information literacy (some do not distinguish information literacy from technological competency, however). Most institutions explained their direct and indirect methods of assessment. For the majority, assessment takes place at the course level. Only one quarter of the institutions included results; just two were able to give examples of the impact on teaching and learning. Compared to the assessment of all other general education competencies at the community colleges, the assessment of information literacy appears to be the least developed system.

Examples of Impact of Assessment Results on Teaching and Learning

- At Anne Arundel Community College, a faculty assessment team reviewed papers from ten courses using a rubric; results have led Anne Arundel to address these issues: student plagiarism, integration of source material into student writing (including correct source citation), improving faculty skills in writing effective assignments, greater collaboration between library faculty and discipline faculty, and infusing information literacy skills in all learning environments.

Public Four -Year Colleges and Universities

Most of Maryland's public four-year colleges and universities have been involved in developing formal learning outcomes assessment programs for less than four years. Three institutions have just begun the process. Because of the wide difference in progress, the ability of the four-year institutions to provide learning outcomes assessment results and discuss the positive impact of results varied greatly. However, as evidenced by their reports, it is clear that the four-year institutions place great importance on the learning outcomes effort. Most provided institutional plans and timelines for implementation of learning assessment systems.

Most four-year institutions have defined all general education competencies and are using learning outcomes assessment methods to measure them. About half reported assessment results; fewer were able to give specific examples of how they have been used to improve teaching and learning.

Learning outcomes assessment takes place at the course level at all four-year institutions. Assessment at the program and institutional levels has been implemented in widely varying degrees; some institutions are still organizing assessment infrastructure and conducting faculty training, while a few have achieved full implementation. Towson University has in place a complete system of direct learning outcomes assessment of all general education competencies.

University of Maryland at Baltimore was not required to submit a report because of its focus on professional and graduate-level education. University of Baltimore, whose undergraduate programs are overwhelmingly upper-division, does not examine the goals of lower-division general education, except when they are also goals of its upper-division required core curriculum or of a specific program. Thus, its report was abbreviated.

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 scored by rubric
- portfolio assessment
- capstone projects
- institution-developed proficiency tests
- institution-developed pre-post tests

Indirect Methods

- grade distributions by course and program
- pass rates in general education courses
- student exit surveys
- student course evaluation surveys
- graduate surveys
- nationally-normed standardized student surveys

Written and Oral Communication

Of all the general education competencies, the assessment of writing is the most developed assessment system at the four-year institutions. All have developed definitions for written and oral communication. Two campuses assess writing proficiency directly by evaluating writing samples using a rubric; an additional three require all students to pass a faculty-developed English Proficiency exam. Almost all of the institutions explained the assessment measures currently in use and the level at which the assessment is conducted. Most presented detailed summary results of assessment. All stated that assessment results have been used to improve teaching and learning; half included examples.

Examples of Impact of Assessment Results on Teaching and Learning

- At Bowie State University, review of basic Communication course pass rates has resulted in a plan to reduce class size.
- Frostburg State University Freshman Composition pass rates have prompted faculty to consider additional tutoring as well as the creation of more "linked sections" of composition, and an academic subject.
- Towson University composition faculty, based on evaluation of student papers using a rubric, will be revising the departmental syllabus to increase attention to writing organization.
- University of Maryland Baltimore County has funded projects directed at increasing or improving writing in the disciplines based on survey results and feedback from faculty.
- At Morgan State University, analysis of writing proficiency exams has led to faculty dialogues about re-enforcing language arts and critical thinking skills campus-wide.

Scientific and Quantitative Reasoning

Most institutions have developed definitions for scientific and quantitative reasoning. All but one explained the assessment measures currently in use and the level at which the assessment is conducted. About half presented summary results of assessment. Although all stated that assessment results have been used to improve teaching and learning, only one-quarter provided examples.

Examples of Impact of Assessment Results on Teaching and Learning

- Towson University faculty, applying the results of rubric-scored exams, are using a problem-solving method introduced by a mathematician and are making their courses more student-oriented through cooperative groups, individual and group projects, and appropriate technology.
- At University of Maryland Baltimore County, grade reports reviewed at the departmental level have led to pedagogical enhancements, an example of which is an National Science Foundation-supported research project on the implementation of active-learning techniques in basic Biology courses.

Critical Analysis and Reasoning

All institutions have developed at least draft definitions for critical analysis and reasoning. Half explained the assessment measures currently in use and the level at which the assessment is conducted. Half presented summary results of assessment. While all stated that assessment results have been used to improve teaching and learning, just one-third gave examples.

Examples of Impact of Assessment Results on Teaching and Learning

- At Bowie State University, course pass rates have led faculty to strengthen critical thinking activities in Philosophy courses.
- Towson University Chemistry faculty, in response to direct assessment results, is now placing more emphasis on developing students' problem solving skills.

Technological Competency

At least draft definitions of technological competency have been formulated at most institutions. Most explained the assessment measures currently in use and the level at which the assessments are conducted. While about half of the institutions presented summary results of assessment; none were able to provide concrete examples of the impact of assessment results on teaching and learning.

Information Literacy

Most of the four-year institutions have developed at least draft definitions for information literacy. Most explained the assessment measures currently in use and the level at which the assessments are conducted. One-third presented summary results of assessment and included examples of the impact of assessment results.

Examples of Impact of Assessment Results on Teaching and Learning

- At University of Maryland Eastern Shore, results from course-level tests and surveys administered to students in library instructional programs have led to the creation of a required one-credit course.
- At University of Maryland University College, Library Course faculty is considering devising more learning activities that emphasize search statement logic and Boolean logic, based on pilot testing of an online direct assessment tool.

Section III. Executive Summaries and Commission Evaluation Community Colleges

Allegany College

Institutional Executive Summary of 2004 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. During the Spring 2002 semester, a faculty-based ad hoc committee met and developed a draft of a proposed General Education and Other Essential Core Skills Goals Framework. This same group was appointed for 2002-2003 as a general education taskforce. The taskforce has drafted a framework for re-examining all general education programs with pilot implementation in Spring 2004 through Spring 2006. The framework 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 in each associate degree.

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.

The task force used these two frameworks to develop a matrix 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. As shown in the matrix, these general education courses follow a specified timeline for review of assessment results and a plan of action to follow if assessment results show the need.

Two of the five general education areas, English Composition and Mathematics, piloted the implementation of the General Education and Essential Core Skills Goals and the Student Learning Assessment Frameworks during the 2004 Spring Semester. In the areas of English Composition and Mathematics, the courses English Composition (101), College Algebra (102), Elements of Mathematics (105), and Elements of Statistics (221) were taught by a group of faculty to pilot a revised course syllabus format linked to the frameworks during spring 2004. The faculty in the areas of Biological and Physical Sciences and Social and Behavioral Sciences created draft versions of their respective matrices during the 2004 spring semester with pilot implementation to occur during the

2004-2005 academic year. The faculty in the areas of Arts and Humanities will develop their matrix during the 2004-2005 academic year with pilot implementation during the 2005-2006 academic year.

All career programs during a five-year timeframe will develop a matrix specifying what program goals are linked to nine essential core skills goals and how they will be assessed in their program areas. Additional program assessment questions will be included as an integral part of the College's program review system. The Radiological Technology and Office Technologies Programs will develop a matrix and pilot during the 2004-05 academic year.

The next phase of the project involves the collection of data for the two piloted general education courses. The validation of classroom evaluation through grading rubrics and benchmarking with community college peers will ensure that course grades are an accurate reflection of student learning. In addition to the data being collected at the course/program level, the college also utilizes institutional assessment data. The data are obtained through biennial graduate and employer surveys.

A preliminary review of course grade data shows that the college pass rates for general education math and English courses are indicative of high student achievement. Course pass rates have generally edged upward since 1996-97 in each piloted course area. Math 102 was introduced in AY 1996-97 as a replacement for Math 101 which did not satisfy COMAR requirements as a college level algebra course. During this year, also, the developmental placement system was in the process of being calibrated to better predict success in college algebra. Hence, wider fluctuations in success were observed during that period.

The main general education institutional assessment measures used are graduate and employer surveys. As part of the biennial graduate surveys, students are asked to indicate the extent that their attendance at the college helped them gain knowledge about a number of aspects related to general education. A review of results from the last four surveys shows that graduate and employer ratings of graduate proficiency in general education areas have been relatively steady over the last decade and that Allegany College of Maryland graduates ratings are comparable to graduates of other community colleges in the State.

The College will strive to systematically implement, over a three- to five-year timeframe, comprehensive general education and student learning assessment frameworks for all programs, both transfer and career. The review process will include additional assessment questions, such as student transfer success rates at the four-year college or university and comments from graduates on their satisfaction with transfer and career programs. There will also be analysis of enrollment trends, curriculum changes, and/or satisfaction based on external trends, feedback from advising committees, tech scans, graduates, and employers.

Because the general education framework described above is relatively new, the basic thrust of college efforts thus far has been in promoting faculty development opportunities. Faculty have participated in campus-based workshops as well as regional and state conferences with the themes of general education and assessment of student learning. Among the topics covered are grading and assessment issues, Middle States Standards 12 and 14, and general education programs at other community colleges and universities.

Another result of the new general education framework is that course syllabi in selected courses have been revised to be more learner-centered and linked more directly to the general education course matrix. This revised syllabus format was implemented in spring 2004 pilot courses to include the appropriate general education and other essential core skills goals, intended learning outcomes, and methods that will be used to assess student learning.

MHEC Staff Review of 2004 Student Learning Outcomes Assessment Report

Allegany College has had a general education task force in place since 2002 that has developed a framework to re-examine all general education programs. According to the report, the College will strive to systematically implement, over a three- to five-year period, comprehensive general education and student learning assessment frameworks for all programs.

All five general education competency areas have been defined. Most assessment is at the course level in the form of course pass rates; trends in pass rates for Math and English general education courses were discussed in the report. Alumni surveys are used as an indirect method to assess learning at an institutional level. Selected alumni survey results relating to the general education competency areas were presented and discussed. Examples of the ways in which these assessment methods have been used to improve student learning were not provided.

Anne Arundel Community College

Institutional Executive Summary of 2004 Learning Outcomes Assessment Report

Chairs and faculty always have regarded assessment of learning as part of their professional responsibility at Anne Arundel Community College. Assessing learning became an institutional priority at the college in July 1995 when the first strategic planning process began. In fall 2001, the college formally established systems, methods and operational resources for coordinating persistent, iterative, systematic and reliable learning outcomes assessment. This is when the Vice President for Learning established the Office of Learning Outcomes Assessment (LOA) led by a director within the Dean for Learning Advancement's office. The LOA office, established as a result of strategic action planning in the 1996-2000 strategic plan period, coordinates, facilitates and supports with institutional resources comprehensive planning, activities, data collection and reports associated with learning outcomes assessment at multiple levels: course, program and institutional.

The college faculty spent the five years prior to 2001 inductively building a college-wide culture of assessment, and an *ad hoc* task force (Outcomes Assessment Team for Student Success, (OATSS), led and staffed by faculty representing all discipline affinity groups, formulated a multi-faceted, flexible and discipline-specific outcomes assessment plan. OATSS, a task force of a college governance committee chaired by the dean for learning advancement, completed crucial foundational and policy work that provides the platform upon which our current systems now rest. All definitions for core competencies emanated from OATSS that achieved college wide consensus for approval of a competency-based model for Learning assessment at the college.

In addition, OATSS, working with chairs, faculty members and the office of planning and research, or chairs working independently, developed indirect correlation and attrition studies to isolate success indicators for certain courses; the course selections were left to the chairs but usually were general education or gateway courses leading into a discipline sequences within programs. Major reforms and revisions that impact learning accrued as a result of these studies:

- Prerequisites of eligibility for credit English for an array of courses as disparate as Financial Accounting and Fundamentals of Biology.
- Reformatting selected biology courses: lectures and labs are block-scheduled so that one faculty member is accountable for both parts of the course. (Attrition and success studies, indirect indicators of discipline level learning, in combination with analysis of student opinion forms and of qualitative exit interviews with students who had not been retained or who had not been successful with a grade of C or better yielded data persuasive to the vice president to approve a pilot of a block scheduling experiment; in turn, the follow-up study provided data showing increased retention and success rates that led to the revised formatting).

- Adjusted faculty loading to acknowledge increased science lab value's impact on learning: labs are now applied theory environments interactively delivered by the faculty member.
- Development of standard exams for gateway sociology courses: the faculty agreed to formulate exams together after a comparison of multiple finals for one course showed a wide range in quantity and emphasis of covered materials and that reflected lack of congruity with the stated outcomes for the courses.
- Creation of the Council on Developmental Education that in April 2004 published a comprehensive study of developmental student success and retention in both required developmental courses, in subsequent credit courses in the disciplines for which they required development, and in other credit disciplines that are highly subscribed general education courses (BIO and PSY). The chairs will receive this study for any appropriate action in fall, 2004.

AACC Learning Assessment Progress

Since 2001, Anne Arundel Community College has employed a competency-based model to assess student learning outcomes in courses and programs. Success in eight college-wide core competencies is expected of all AACC graduates. These competencies mirror those related to general education and essential skills identified in *Characteristics of Excellence*, the accreditation standards of the Commission on Higher Education of the Middle States Association of Colleges and Schools.

While learning outcomes assessment planning and progress reporting are linked to the college's strategic planning, implementation is completely within the purview of the faculty and is conducted by them at the course, program and institutional levels, supported and facilitated by the Office of LOA. The Office of Learning prominently stated a set of measurable objectives for learning outcomes assessment in the college's Strategic Plan (2005@AACC.qual.edu), and the Office of LOA in collaboration with the college deans set a timeline for phasing in comprehensive assessment actions that have included:

- In 2001, the deans and chairs targeted development of learning outcomes using the template prepared by OATSS, for a set of high-enrollment general education; the director of LOA trained faculty members to develop learning outcomes for courses. Fifty-five of 188 general education courses listed in the AY 2003-04 college catalog and 36 non-general education courses have stated outcomes.
- *A Handbook for Assessing Student Learning* was first published in spring 2001 and revised in spring 2002.
- In 2002, departments began to develop learning outcomes for associate degree programs. Of the 31 associate degree programs in the AY 2003-04 catalog, 24 have stated program outcomes.
- In 2002, the college adopted the instructional design software Worldwide Instructional Design System (WIDS) and the Office of LOA began training faculty and staff in the use of the software.

- Faculty Assessment Teams in 2002 refined rubrics and used them for assessment of student writing samples for effective writing (communication) and information literacy skills.
- In 2002-2003, the college participated in a pilot project sponsored by the American Association for Liberal Education (AALE) focusing on indirect measures for assessing student gains in selected online general education courses.
- In 2002-2003 and in 2003-2004, the college's Educational Policies and Curriculum faculty committee formulated a new policy requiring that all new and substantially modified courses and program proposals include learning outcomes as integral to the proposals and required WIDS formatting for such proposals.
- In 2003, faculty members piloted course and/or program assessment projects that were related to stated learning outcomes. At the time of this report, 15 out of 32 (47%) departments reported on their assessment efforts.
- A brochure for students on learning outcomes assessment was published and distributed to students in AY 2003-04.
- An Assessment Advisory Board consisting of faculty and staff across the college was formed in fall 2003.

In spring 2004, a visiting evaluation team for the reaffirmation of the college's accreditation by Middle States endorsed the college's assessment of learning progress and planning and offered some suggestions for adding learning outcomes assessment to institutional effectiveness assessment.

Overview: SLOAR 2004

Section one: **AACC's eight *College wide Core Competencies*** are defined and compared to the State's general education competencies as outlined in COMAR.

Section two: ***Infrastructure for Assessment*** at AACC is described.

Section three: ***Assessment Results*** are described within the context of assessment initiatives at the course, program and institutional levels, including:

- Using a rubric developed by a faculty team, faculty volunteers **assessed student writing samples for 'effective writing.'**
    - A set of 83 random writing samples from seven different courses was assessed. In one cohort, of 48 who completed general education English course requirements, 65% achieved written communication competency. In another cohort of 35 students who did not complete the English requirement, 40% achieved the targeted competency. The sample size is too small to provide any general conclusions at this point.

- Using a rubric developed by a faculty team, faculty volunteers **assessed student writing samples for 'information literacy.'**
    - A set of 100 random writing samples from ten different courses, including an online course, were assessed. The assessment team reported that 42% of papers assessed met the benchmark set by the team.

[These two **institutional level assessments were direct methods** involving authentic writing samples in courses. Assessors' recommendations for assessment of written communication skills and information literacy skills will be considered in the context of future implementation planning. Due to the cumbersome nature of collecting student writing samples, alternate strategies to implement institution-wide assessment of competencies is seriously considered.]

- Reports on assessment results for selected courses or programs. Since these outcomes are directly linked to college-wide core competencies, the results reflect either student achievement of the stated competencies or areas where improvement is indicated.
    - Faculty members used both **direct and indirect methods** of assessments to gather data relating to three outcomes in each course/program selected by the department. The departments have plans to weigh the **impact of the assessment results** in early fall 2004 and continue the assessment process in these and other targeted courses or programs.

- Three projects supported by Designs for Learning/Outcomes Assessment Grants from the college were conducted by a total of six full-time faculty members (two more were awarded for the 2004-2005 academic year). The focus of the projects was to research, develop and pilot assessment strategies to improve student learning in English composition, Physical Science and Mathematics courses.

Section four: ***Assessment of Learning in Online Courses***, includes results of a special, **indirect assessment** project sponsored by AALE.

- Sixteen online general education courses were selected and a web-based survey was administered to both the faculty teaching these courses and the students taking them. The effectiveness of assessment methods stated by faculty was compared/contrasted to the 'usefulness' of the methods as reflected by students. Student gains in certain general education skills such as communication, information literacy, scientific knowledge, and technology proficiency were compiled. The project resulted in creation of a viable model for indirect assessment gains in general education skills.

Section five: ***Indirect Measures of Student Gains*** arrays data provided by the Office of Planning, Research and Institutional Assessment at the college. The results of graduate follow-up survey (2002), Licensure exams passing rate in Health Professions and student success rate in sample general education courses provide direct and indirect evidence of student learning in AACC's career and transfer degree programs. It is noteworthy that the first year GPA of 2.76 of the most recent group of transfer students is the highest

GPA of community college transfer students after their first year of enrollment at four-year colleges.

Section six: ***Timeline for Ongoing Assessment*** outlines future implementation of the learning outcomes assessment:

- Proposal to continue assessment at the course, program and institutional levels.
- A plan for program review (in associate degree programs).
- A plan to continue the process of developing course and program learning outcomes.
- Development of strategies to provide additional incentives to faculty for assessment-related special projects.
- Development of strategies to involve more part-time faculty in assessment of student learning.
- Development of strategies to disseminate assessment information and results to students.
- A plan to provide more professional development opportunities to faculty and staff in learning outcomes assessment.

In recent years, the learning outcomes assessment process at Anne Arundel Community College has evolved into a successful model as evidenced by a number of presentations by AACC faculty and staff colleagues at local, regional ,and national assessment conferences and by commendations by the Middle States' visiting team. In June 2004, the college received a reaffirmation of accreditation without conditions from the Middle States Commission on Higher Education, which commended the college for its progress so far. The college, thus, is well positioned to continue the systematic assessment of learning in its continuous evolution as a learning-centered college.

MHEC Staff Review of 2004 Student Learning Outcomes Assessment Report

Anne Arundel Community College faculty began building a competency-based model to assess student learning outcomes in courses and programs in 1995. In 2001, formal systems, methods, and operational resources were put into place.

Eight college-wide core competencies expected of all Anne Arundel graduates; included are the five general education competencies. All have been defined.

Anne Arundel employs direct methods to assess competency in general education areas at the course and program level, using faculty-developed rubrics to score writing samples, standardized exams, and, in some cases, portfolio assessment. At the institutional level, both 'effective writing' and 'information literacy' are directly assessed. Indirect methods of assessment include success rates in general education courses (i.e., percent who earned 'C' or better), student surveys, and alumni surveys. Many examples of results from both direct and indirect assessments were discussed in the report.

In 2002-2003, the college participated in a pilot project sponsored by the American Association for Liberal Education (AALE) focusing on indirect measures for assessing student gains in selected online general education courses.

The report also presented examples of ways in which assessment has been used to improve student learning. In the Sciences, for example, the faculty load was adjusted after assessment showed increased science lab value's impact on learning (labs are now applied theory environments interactively delivered by the faculty member).

Baltimore City Community College

Institutional Executive Summary of 2004 Learning Outcomes Assessment Report

The mission of Baltimore City Community College (BCCC) is to provide the citizens of Baltimore with quality, accessible, and affordable education and skills training that will allow them to achieve their full potential, become liberally educated, appreciate contemporary issues, earn a living wage, and become productive and socially engaged citizens of their time.

BCCC is committed to meeting the objectives of the Middle States' standard and fulfilling the College's mission. Therefore, BCCC has outcomes assessment activities underway throughout the College in each of the five competency areas each of the five competencies related to general education and 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, technological competency, and information literacy. For example, the Student Learning Outcomes Planning Committee was formed in 2003 to renew the College's commitment to systemic program and course evaluation and student learning outcomes assessment and will be reconstituted in Academic Year 2004-2005.

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

Competency 1: Written and Oral Communication

The College is increasingly committed to the importance of improving written and oral communication skills amongst the student body throughout the various disciplines. To this end, there is a greater commitment to exploration and assessment of the mastering of the writing process. Although definitions vary 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. 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.

Throughout the disciplines, written communication skills are measured through such activities as quizzes and tests, essays and reports, and journals. 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.

Assessment measures occur at course, program, and institutional levels depending on the discipline. Course passing rates are compiled on a semester basis. Staff is in the process of developing a method of collecting data on the other assessment measures mentioned herein through BCCC's new Faculty Academy.

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.

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.

Methods of assessment include quizzes and tests, portfolio/notebook assessment of student work, and student data collection and analyses in various mathematical applications.

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. Staff is in the process of developing a method of collecting data on the other assessment measures mentioned herein through BCCC's new Faculty Academy.

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.

Competency 3: Critical Analysis and Reasoning

The definition of critical analysis and reasoning tends to be more discipline-specific. Examples of the various definitions include developing skills in analyzing the strength of various materials and structures using graphing and analytical methods; analyzing and assessing information by using critical thinking to solve problems and participate in strategic planning; and evaluating evidence by differentiating among facts, opinions, and inferences.

Method of assessment include proposing a solution to a problem, writing a position paper, designing and testing mathematical models, 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. Staff is in the process of developing a method of

collecting data on the other assessment measures mentioned herein through BCCC's new Faculty Academy.

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.

Competency 4: Technological Competency

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 overhead projectors to audio-tapes and such software programs as PowerPoint. Effective use of discipline-specific equipment and computer hardware are also assessed.

Methods of assessment include quizzes and tests, portfolio/notebook assessment, documentation of programming codes, and effective use of electronic office equipment, etc.

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. Staff is in the process of developing a method of collecting data on the other assessment measures mentioned herein through BCCC's new Faculty Academy.

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.

Competency 5: Information Literacy

Definitions of information literacy tend to be discipline specific, but commonly involve the students' mastery of information retrieval and application. Students are required to identify, locate, and use informational tools for research purposes.

Methods include computerized journaling, use of library databases, and generation of such items as electronic spreadsheets as well as short- and long-answer quizzes, tests, and portfolio/notebook compilation.

As with the other competencies, information literacy skills are assessed at the course and program levels depending on the discipline. Course passing rates are compiled on a semester basis. Staff is in the process of developing a method of collecting data on the other assessment measures mentioned herein through BCCC's new Faculty Academy.

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.

MHEC Staff Review of 2004 Student Learning Outcomes Assessment Report

Baltimore City Community College formed the Student Learning Outcomes Planning Committee in 2003 and plans to reconstitute this committee in 2004-2005. Neither discussion of the committee's activities, nor a timeline for implementation of assessment plans, was included in the report.

Definitions of the general education competencies have been formulated by program. Assessment takes place primarily at the course level; course pass rates are collected at the end of the term for many courses and programs. Results were not presented in the report. The new Faculty Academy plans to develop a method of collecting data on other assessment measures.

According to the report, for every competency area, within each program, "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." Examples of the ways in which assessment results have been used to improve programs were not provided.

College of Southern Maryland

Institutional Executive Summary of 2004 Learning Outcomes Assessment Report

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

College Definition of General Education:
At the College of Southern Maryland, the mission statement "The College of Southern Maryland prepares its students and community to meet the challenges of individual, social, and global change" is at the core of all student learning expectations (CSM Catalog 2004-2006, p. 14). General education is one of seven institutional effectiveness goals that support the mission.

The college defines general education by the "required array of specified general education courses in all degree programs and by a taxonomy of Skills and Categories of Knowledge specified by the faculty" (CSM Catalog 2004-2006, pp. 51-52). Seventy-two (72) competencies form the taxonomy. 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.

The college is presently considering the assessment of general education curricula as one *Program*, utilizing data collected from other programs being monitored. Thus, general education is the model of the integrated approach to assessment that reaches across all three levels of the college's outcomes assessment program. The college supports the definition of Information Literacy found in the Characteristics of Excellence, and through its Outcomes Assessment Steering Committee is developing a college-wide definition.

Levels of Assessment
CSM offers over 100 *general education* courses that span most academic disciplines and programs. General education is one of the college's institutional effectiveness goals and general education outcomes are included within the institution's overall plan for assessing student learning. Data from the general education assessments are gathered and analyzed at the course, program, and institutional levels.

Direct Evidence of Assessment
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 assessment plans. Each department has been phasing in assessment of representative programs and courses. Over the past three years, outcome assessment measures and assessment

methods were determined, results reported, and then actions recommended based on the results.

In spring 2004, the college administered the Academic Profile (a standardized, comprehensive exam offered by the Educational Testing Service which focuses on general education competencies) to a sample of 63 prospective graduates in spring 2004. The plans for future administration will include testing a cohort of 150 incoming students and then another 150 students who have completed a minimum of 30 general education credits. These data provide a direct measurement of "value-added" learning while students are at CSM. Briefly, the results of the first Academic Profile administration are encouraging: national mean score on the Short Form: 441.4 SD 17.7 (N= 24,021); CSM mean score on the Short Form: 452.67 SD 18.44 (N=63) within a scale score range of 400-500. On the sub-scores of critical thinking, reading, writing, mathematics, humanities, natural sciences, and social sciences, the CSM mean score exceeded the mean of all colleges reported by Educational Testing Service for two-year institutions.

Written and Oral Communication

- The Languages and Literature Department uses a rubric to grade all written assignments in English 1010 Composition and Rhetoric. The use of the rubric is also mandatory for all second-year English classes. The rubric is also used to evaluate the informative speech in all COM 1010, Basic Principles of Speech Communication classes; it may also be used to evaluate presentations in other Communications classes and in other disciplines at the instructor's discretion. Individual professors within other academic disciplines may choose to grade assignments according to the standards. Speeches are also assessed using a rubric.

- In the Fine Arts and Humanities Department tests, projects, production books and quizzes are used to assess written and oral communication. Specifically, written and oral communication in history courses is being evaluated in the following ways: essay and short answer questions on examinations, complex written projects (i.e., theme papers, book reviews, etc., and oral presentations).

- Additional assessment activities of written and oral communication include Assessment Technologies Inc. test (ATI) in Nursing, the Capstone Environmental Project in Environmental Technology, the Accounting Capstone project, and project-based Learning exercises in Information Technology.

Scientific and Quantitative Reasoning

- In the Mathematics, Physics and Engineering Department, students demonstrate their understanding of graphs and uses of linear functions, which include supply and demand equations, cost and revenue equations or linear regression. The department has also implemented standardized questions that will appear on the unit #1 exam in all sections. The department has also developed a rubric for the grading of the exercise, which is distributed to each instructor and the points reported on a score sheet. Results are recorded on a Course Outcomes Assessment Record.

- Additional standard assessment questions on quizzes and exams require students to reason mathematically, explain scientific models and the data which support them and plot/interpret graphs. Group activities require students to perform mathematical computations and plot/interpret graphs. Students must demonstrate the use of microscopes and identify actual samples of plants in the Biological and Physical Sciences department.

- Assessments include peer review papers on assigned topics (on the Internet, out of class, in class, etc.), process oriented guided inquiry learning activities, ACS standardized exam on General Chemistry I, chapter quizzes in class, and written exams in class. Capstone assessments are also used in Management Development, Accounting, and in the Environmental Technology program to assess scientific and quantitative reasoning.

Critical Reasoning and Analysis

- In the Biological and Physical Sciences Department, a common assessment practice is the use of critical thinking and analysis questions in the text.

- The Business, Economics, and Legal Studies Department uses Capstone Financial Analysis Exercises; Nursing uses the Assessment Technologies Inc. test (ATI) to assess this general education competency.

- The Technical Studies Department, especially in the web-based course ITS 1015, The Information Age-Emerging Technologies, assesses students' posted responses through a course discussion area of Issue/Critical Thinking Activities.

- Standard Mechanics Problems in Engineering; Capstone Environmental Project in Environmental Technology; Economic Problem Set in Management Development; Paralegal Case Brief Exercise; Paralegal Ethics Memorandum Exercise are all used for the assessment of critical analysis and reasoning.

Technological Competency

- The Technical Studies Department's use of the BookOnCD provides links to websites, interactive labs, interactive quizzes, and Quick Checks that enable students to synthesize information and concepts gained from reading. This facilitates mastery of two of the college's general education competencies: describe the functions and applications of a computer system, and identify the major hardware components of a computer system.

- In the Biological and Physical Sciences Department, AST 1010 (Introduction to Astronomy), students use calculations to perform mathematical manipulations for activities. In Botany, (BIO 1010), students' use of microscopes is assessed; General Chemistry (CHE 1200) students rate peer review papers on assigned topics (on internet, out of class, etc.).

- In the Fine Arts and Humanities Departments, instructors use activities related to the 'hands-on' use of equipment for projects to assess students' technological competence.

Other assessments used for technological competence include Automated Accounting Capstone Exercise in Business, Assessment Technologies Inc. test (ATI) and the National Licensure Exam (NCLEX-RN) in Nursing, Standard Mechanics Problems in Engineering, a Capstone Environmental Project in Environmental Technology, Project Based Learning Exercises in Information Technology, and software exercises in Paralegal.

Information Literacy

- In the Fine Arts and Humanities Department, information literacy in history courses is being evaluated in complex written projects, such as theme papers, book reviews, etc. Students are expected to conduct research for print, web, or audio-visual resources that can be cited in their assignments. Standards that are used to evaluate information literacy are determined in written work. Students' ability to gather resources/information will impact the quality of the essays or papers they submit. Students are expected to demonstrate the ability to gather resources for research based assignments. History faculty may not routinely teach students this skill, but gathering resources for research based assignments may be addressed through comments made in class about research, on written assignments, and in examples, such as a course bibliography or reference to bibliographies in required course readings and handouts.

- Information literacy is assessed in the Biological and Physical Sciences Department through the peer review papers on assigned topics. The Learning Assistance Department uses the Basic Information Literacy Grading Matrix and Texas Informational Literacy Tutorial (TILT) test scores to assess information literacy. The Languages and Literature Department also use TILT in English Composition and Rhetoric. Students who do not complete the tutorial and do not submit the research paper do not pass the course, regardless of their other grades in the class.

- Within the Technical Studies Department, ITS 1015, students are assessed on their use of the BookOnCD, which provides links to websites, interactive labs, interactive quizzes, and QuickChecks that enable students to synthesize information and concepts gained from reading, describe the functions and applications of a computer system, and identify the major hardware components of a computer system.

Indirect Evidence of Assessment

Indirect evidence of the assessment of general education competencies builds off of a long tradition of assessment of the college's general education program. As one of the ten effectiveness goals of the college, general education proficiency is a part of the outcomes assessment plans at each level. The college has developed procedures for assessing general education through course and graduate surveys to determine program deficiencies, and published the results of that assessment for many years. Each semester 10 to 15 introductory-level general education courses are selected for a course-specific

survey. Currently, 68 different general education courses have been surveyed, some several times, for a total of 191 courses surveyed. Each year, graduating students are also surveyed on their general education skills and categories of knowledge. Reports are provided to the General Education Committee who then provide feedback to instructors. The data are used by departments to make curricular change and to support Program Outcomes Assessment efforts.

Availability of Assessment Results

The College of Southern Maryland has included general education assessment in its Institutional Outcomes Assessment plan as one of the important functions that supports the mission of the college. The General Education Committee is represented on the Outcomes Assessment Steering Committee, and the outcomes measures for general education have been defined at the institutional level. The fact that general education outcomes are taken seriously by the institution has been a major strength. There is aggregate data available for both graduate and course outcomes. Data continues to be collected, making curricular improvement the logical result. CSM is also exploring the Baldrige National Quality Program as a method of continuing quality improvement. As CSM moves to become a Baldrige program, additional methods for assessing student learning outcomes will become apparent. The faculty has developed a very detailed statement defining general education. This description has received wide publicity within and outside the college community since its adoption in 1987.

The college has developed procedures for assessing general education, and has published the results of that assessment for many years. Data from assessment of the general education competencies are maintained in several places and are widely available. Assessment results on each of the competencies are made available in the academic departments at the course and program levels, with the General Education Committee, and for some assessments, through the Outcomes Assessment and Research Department. For example, the Academic Profile results and scale scores and general education survey results are maintained by the General Education Committee and the Outcomes Assessment and Research Department. Still in the pilot phase, scores for the Academic Profile will be shared with the faculty, the Outcomes Assessment Steering Committee, the Institutional Outcomes Assessment Committee, and the Program and Course Outcomes Assessment committees. Plans are in place to display the scores on the college Intranet with the other outcomes assessment results.

The general education committee meets regularly to consider recommendations for changes in the statement and to provide the faculty with information regarding the state of general education at the college. The committee has conducted faculty workshops to create and revise General Education Accountability Forms. These forms, used for each general education course, list the competencies taught with emphasis in that course. Those competencies are listed on the syllabus. Most departments maintain a course master syllabus listing the general education elements to be covered by all faculty members who teach a general education course. The inclusion of the general education elements in course syllabi is a requirement on the syllabus checklist found in the CSM *Full-time Faculty Handbook*. On an annual basis, the Faculty Evaluation Committee

monitors course syllabi of all full-time faculty members. The monitoring of adjunct faculty's syllabi is done by departments. Faculty members participate in ongoing general education surveys by distributing them to students in their classes and returning them to the college's Outcomes Assessment and Research Department.

Many improvements come through initiatives and pilots launched by individual departments and are often connected to course objectives and general education items listed on master (standardized) course syllabi. Many of these initiatives and pilots arise from yearly planning goals and objectives that individual departments create based on their departmental mission statements. Individual faculty members accumulate faculty service units listed on their faculty development plans through implementation of these initiatives and pilots.

Changes Due to General Education Assessment

- In the Accounting program, software has been added to the tax course to improve graduates' computer skills, and a ratio analysis exercise is being piloted to improve graduates' math and critical thinking skills.
- In the Management Development program, instructors in economics courses have acquired world maps and installed them in their classrooms to improve geography knowledge for program graduates.
- The Languages and Literature department began using the Texas Information Literacy Tutorial in all ENG 1010 (Basic Composition and Rhetoric) courses in the fall of 2002 to improve information literacy in all program graduates.
- The Environmental Technology program will require more speaking and listening assignments in their courses.
- Faculty members in the history program have requested that the Program Outcomes Assessment Committee consider the possibility of creating and tracking a data domain for "research" in the General Education Graduate Surveys.
- Providing programs like Smart Thinking and PLATO to students through the Learning Assistance Department Laboratory and over the WEB addresses the needs of faculty and staff in such areas as tutoring in writing, mathematics, economics, and accounting.

College Plans and Initiatives for the Measurement of Student Learning

- Continue to improve feedback of survey data to faculty and administration. Course and graduate survey data, as it continues to accumulate, is available to interested individuals on the college Intranet and shared drives. This process has been greatly improved in the last year.
- Begin to monitor and record institutional, program, and curricular changes that result from the interpretation and use of survey data. With additional access to aggregate data, faculty and administration will be able to determine trends and recommend appropriate changes.
- Assess general education as a program using the program outcomes assessment procedures described in Standard 14 of the Characteristics of Excellence. Many of the departments have included direct measures of general education outcomes (skills and categories of knowledge) in their Program Outcomes Assessment Plans. Thus,

while departments use data generated by the General Education Committee as part of course and program assessment, the committee, in turn, uses data generated by departments as part of general education assessment.

- Continue to survey ten general education courses every semester, and coordinate that effort with efforts of the Course Outcomes Assessment Committee.
- Continue to monitor the number and type of courses that qualify as general education courses (CSM Catalog *2004-2006*, pp. 49-50).
- Continue to update and monitor General Education Accountability Forms for all general education courses. These forms are continually being reviewed. They are maintained in each Department, in the Outcomes Assessment and Research Department, and in the Library (in conjunction with course syllabi review).
- Track the inclusion of general education items "taught with emphasis" on syllabi as monitored by the Faculty Evaluation Committee. Consider ways to include adjunct faculty in this monitoring process.
- Explore direct measures of student learning outcomes. Future administration of the Academic Profile will include a cohort of 150 incoming students and then another 150 students who have completed a minimum of thirty general education credits. These data should be the beginning of data collection that will provide a direct measurement of "value-added" learning while students are at CSM.
- Continue the efforts the Innovative Teaching Center has sponsored, i.e. numerous workshops on CATS in the Classroom. These workshops are offered as face to face sessions and as web-based workshops and have been attended by full-time and part-time faculty and continuing education instructors. These workshops focus on formative- rather than summative- assessment techniques and over 20 techniques are presented (including KWL charts, minute papers, muddiest point activities, rubrics, and pros-cons grids).

MHEC Staff Review of 2004 Student Learning Outcomes Assessment Report

College of Southern Maryland adopted a Faculty's Statement on General Education in 1987. This has been revised to list seventy-two competencies, organized into a taxonomy of Skills and Categories of Knowledge, that the faculty believe will be gained from the general education courses taken by all Southern Maryland degree holders. Four of the basic general education competencies are included in the list and are defined in detail. The fifth (Information Literacy) is under review and a campus outcomes committee is currently developing a college-wide definition.

Southern Maryland uses a variety of direct methods to assess learning at the course and program level (papers and exams scored using a rubric, standardized exam questions, and capstone projects are just some of the examples provided). In Spring 2004, the college administered the ETS Academic Profile to a sample of prospective graduates. Results were presented and discussed in the report. Having successfully piloted this direct assessment method, Southern Maryland plans to expand its use.

Indirect assessment methods include surveys of students completing general education courses (a survey program that has been gathering data for years), as well as alumni surveys. Selected general education survey program data was presented and discussed.

The results of course grades and the graduate education surveys are used at the program and course level to make improvements in instruction. One example came from the Sciences: assessment results led to a project in which faculty made CD's for students containing labeled pictures of anatomy lab specimens along with quizzes.

Community College of Baltimore County

Institutional Executive Summary of 2004 Learning Outcomes Assessment Report

As a Learning College, The Community College of Baltimore County (CCBC) strives to create change in individual learners, engage learners as full partners in the learning process, offer as many options for learning as possible, assist learners to participate in collaborative learning activities, and to strengthen the role of faculty as learning facilitators.

CCBC believes that a learning college succeeds only when improved learning can be documented. In its recent accreditation report, the College's outcomes assessment program was identified as a major institutional strength. The accreditation team recognized the significant steps in the assessment of learning outcomes and pointed to the role of strong leadership, faculty and staff participation, good planning, and targeted resources as critical elements in the success of CCBC's learning outcomes program. In addition, the external evaluator for a grant project involving a select national group of Vanguard Learning Colleges has also recognized CCBC as a best practice institution for learning outcomes assessment.

The Maryland Higher Education Commission (MHEC) has requested that each institution provide, for each of the general education competencies listed in Standard 12, definitions, method of measurement, level of analyses, results and how the results are incorporated for improvement of learning. Below is a summary of CCBC's progress in measuring general education and essential skills and incorporating results into instruction.

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:

- Introduce students to the fundamental principles, concepts, vocabulary, and methods essential for the acquisition of knowledge and skills basic to the field of study.

- Prepare students to communicate effectively using written and oral, or signed, communication skills. **(Competency=Written and oral communication skills)**.
- 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)**
- 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)**.
- Provide students with the knowledge and skills to understand themselves and others from various cultural, social, aesthetic, political, and environmental perspectives.
- 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)**
- 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

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 assesses college level reading; writing; critical thinking; and use of mathematical data in the Humanities, Social Sciences, and Natural Sciences. While the Academic Profile does not provide feedback on all of CCBC's General Education criteria, it does provide standardized feedback that can be used to create baseline data regarding how CCBC's students perform. This assessment was conducted for the first time during the Fall 2001 semester and will be conducted again in Fall 2004.

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 General Education Review Board has designed four questions

to be included in the SIR II to elicit student feedback regarding CCBC's General Education Program Outcomes.

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 **G**ene**R**al **E**ducation **A**ssessment **T**eams. 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.

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.

RESULTS

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. Implications from the data included the need for CCBC to work on critical thinking skills, to reinforce skills learned in one class as students move into other classes, and the need to provide additional culturally mediated instruction.

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

In addition to the standard questions on the SIR II, CCBC added institution specific questions to gather feedback related to four General Education program goals. Each item is scored on a 5 point scale - 5 Much more than most courses, 4 More than most courses, 3 About the same as most courses, 2 Less than most courses, and 1 Much less than most courses. Below are the four SIR II supplemental questions related to the general education program.

How much did this course increase your ability to:

- Take responsibility for own learning? **(Independent Learning Skills).**
- Function with people of different backgrounds? **(Cultural Appreciation).**
- Apply problem-solving skills? **(Critical Thinking Skills).**
- Apply methods and resources of Information Technology? **(Information Literacy/Technology.)**

The mean scores for each of these questions for the Fall 2002 and Fall 2003 SIR II administrations are included in the extended report. When students were asked to compare their current course with other courses, they reported higher levels of challenge with General Education courses when compared to non-General Education courses at CCBC.

The GREAT project's purpose is to implement Common Graded Assignments (CGAs) and has involved scoring rubrics designed by faculty teams in General Education courses across disciplines to gather data to assess the first six General Education Program Goals. CCBC has moved from the pilot stages involving the first steps in this process to full implementation of all stages with over 39 courses.

The skills measured with the CGAs were as follows: Content Knowledge; Written, Oral, and/or Signed Communication; Critical Thinking; Technology as a Learning Tool; Cultural Appreciation; and Independent Learning. These skills match the first six General Education Program goals. At least 30 percent of the available CGAs were scored for each course. 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. With the exception of responses to Cultural Appreciation, all other categories had mean scores above 3.0 in Spring 2004. Other implications from the GREAT project include an increased faculty awareness regarding how general education courses are defined by the six criteria and an indication that there is a need to move from the more traditional approach for how "Content" is conveyed, to an approach with the added expectation for higher level use of applied content, critical thinking, analysis, and synthesis activities.

USING THE PROCESS AND RESULTS FOR IMPROVEMENT OF LEARNING

Learning outcomes assessment at the course level also supports the results of the General Education Program assessment. In the course level learning outcomes projects faculty members develop an externally valid and reliable research design for assessing the learning outcomes of a particular course. (Learning Outcomes Assessment Projects – LOA).

These projects follow experimental procedures whereby the first full semester is deemed the "control" group and baseline data is collected. The Office of Planning, Research, and Evaluation provides support for data collection and analysis, especially for statistical procedures. Based on data analysis, each team determines strengths and weaknesses in student learning and produces a plan for the implementation of curricular or

administrative interventions. Once these interventions are in place, the course is reassessed, and the results from this "treatment" group are evaluated to test the benefits of the intervention.

At CCBC, post-test only and pre/post test designs are utilized in these projects depending on the discipline and course objectives. In addition, some teams have opted to use the evaluation of a specific assignment or portfolio that matches the course objectives, and that uses a grading rubric that has been externally validated.

These projects are time consuming, requiring a minimum of three semesters, but more often following a six-semester plan. Generally one semester is necessary for planning, a second semester to pilot the assessment instrument(s), a third semester for the first full assessment, a fourth to determine and implement the appropriate intervention, a fifth semester for the second full assessment, and a sixth semester for the final analysis and report. Each of these steps of the process is identified with a particular stage of the LOA process:

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

CCBC uses the LOA projects to document valid data regarding student learning outcomes. These data are translated into viable ways to expand and improve learning. The process requires a continuous reflection on the progress the college is making toward meeting its core strategic direction of student learning.

IMPACT ON PROGRAMS

These same five stages are also employed for the program level outcome assessment projects that are conducted as part of the college's Program Review Process.

During the 2002-04 academic years, a concerted effort was made to identify program outcomes for those CCBC academic programs that were scheduled for review that year and for those programs that were to be involved in review for the 2003-04 year. Program Coordinators were provided an overview for developing program outcomes. These were collected, reviewed by staff, and approved by the Vice Chancellor for Learning and Student Development.

Six CCBC programs are now participating in such a structured assessment activity during the 2004-2005 academic year. It is the intent of CCBC that this procedure will make it possible to develop model processes for assessing outcomes in other programs. At the completion of this project, CCBC will have five or six program assessments and supporting documents, which will serve as models for future program outcome projects.

Focusing on Academic and Strategic Planning

Learning Outcomes Assessment has been included in the college's annual Strategic Plan since 1999. CCBC's 2003-04 Operational Plan included a number of operational objectives related to assessment:

- To document that student learning is increasing and to effectively communicate findings from the culture of evidence.
- To conduct five high impact Learning Outcomes Assessment Projects: Year 3 of the High Impact Projects.
- To increase the level of participation in, and commitment to, learning outcomes assessment for full time and adjunct faculty in both the credit and non-credit areas.
- To implement the first year of the General Education Assessment Teams (GREAT) Project.

As in previous years, these were identified as important activities in building CCBC's Culture of Evidence, and each was successfully completed.

MHEC Staff Review of 2004 Student Learning Outcomes Assessment Report

Community College of Baltimore County implemented its Learning Outcomes Assessment Program in 1999. All general education courses must meet eight criteria; the general education competencies are among them. The General Assessment Review Board has designed a comprehensive assessment plan.

All general education competencies are defined (Information Literacy is considered to be a subset of Technological Competency and is not separately evaluated). CCBC makes use of direct methods to assess learning: at the institution level, it administers the ETS Academic Profile, and at the course and program level, it uses faculty-developed common graded assignments and accompanying scoring rubrics to assess each general education discipline area (the General Education Assessment Team—GREAT—Project). Indirect methods include institution-wide administration of the SIR II survey (an ETS course evaluation instrument), alumni surveys, and other student surveys. CCBC has also been participating in the development of E-SIR, a course assessment tool for online education.

Results data from the Academic Profile, SIRII and the GREAT projects were presented and discussed in detail. According to the report, assessment results provide direction for curricular changes. An example given explained that Academic Profile data suggested "...the need for CCBC to work on critical thinking skills, to reinforce skills learned in one class as students move into other classes, and the need to provide additional culturally mediated instruction."

CCBC has successfully completed all of its 2003-2004 Operational Plan Objectives related to learning outcomes assessment and, in its report, discussed future objectives for the 2004-2005 academic year.

Carroll Community College

Institutional Executive Summary of 2004 Learning Outcomes Assessment Report

This report highlights Carroll Community College's efforts toward defining and assessing student learning in each of the five general education competencies identified by the Middle States Commission on Higher Education. For each competency, we will describe how the learning goal is defined by the institution, the methods and instruments used to assess the competency, the level(s) at which assessment occurs, the results of the assessment process, and changes to the curriculum made in response to outcomes data.

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, standardizing outcomes reporting formats, and developing the Core Competencies (a set of knowledge, skills, and abilities to be acquired during the Carroll experience). Carroll continues to refine its understanding of the meaning and purpose of learning outcomes assessment.

Institutional level assessment of the Core Competencies led Carroll Community College to administer the Academic Profile during the 2001/2002 academic year. Comparative data was available from both the Educational Testing Service and from a number of peer institutions within Maryland. From this data, a number of conclusions can be drawn:

When comparing both total scores and individual sub-scores, incoming students at Carroll Community College were as well prepared as sophomores at some of our peer institutions.

- Sophomores at Carroll Community College achieved higher total scores and sub-scores than their peers at three Maryland community colleges.
- Mean total scores and sub-scores were higher for sophomores at Carroll when compared to total scores and sub-scores for our incoming students. However, it is interesting to note that while the mean total scores for incoming students at Carroll fell in the 69th percentile nationally of freshmen at Associates of Arts institutions, the total score sophomores fell in the 59th percentile nationally. Some of this perceived decrease may be a result of more academically prepared students transferring from Carroll to a four-year institution prior to achieving sophomore status.

Currently, the college has nine 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.
- METACOGNITION: the ability to manage one's own thinking and learning.
- REASONING AND PROBLEM SOLVING: the ability to use inductive and deductive logic to draw valid conclusions.
- SOCIAL AND CULTURAL AWARENESS: to understand the influence of culture and the natural environment on the behavior of individuals and groups.

Middle States identifies five 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	Metacognition
	Reasoning and Problem Solving
Technological Competency	Technological Application
Information Literacy	Information Literacy

This report describes Carroll's efforts in assessing each of the five general education competencies identified by Middle States. For each competency, we will describe how the learning goal is defined by the institution, the methods and instruments used to assess the competency, the level(s) at which assessment occurs, the results of the assessment process, and changes to the curriculum made in response to outcomes data. A summary of the results of these assessment processes follows.

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

The Academic Profile measures writing through both norm-referenced and criterion-referenced sub-scores. In the Fall 2001 sample of incoming students, the mean sub-score for College Level Writing was 113.0, 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 would have been 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. This data may be found in Appendix III-L.

Portfolio results from the past five years confirm that Carroll students are weak in the area of "Expression" and continue to need additional assistance in this area throughout their college careers. The Academic Profile, a sentence skills test, and a simple outcomes study conducted at the end of all English 102 classes in the spring of 2003 confirm that our students are weak in grammar, punctuation, and sentence structure. While English 101R and English 101 students exhibit similar writing weaknesses, many times the difference between the two bodies of students is in reading ability, rather than in pure writing ability. Another area of weakness identified by portfolio assessment is the area of "Research and Documentation." Although students seem to master research in English 101, it is apparently difficult for them to learn the skill of attributing ownership and following documentation formats. We have drawn the conclusion that this skill needs to be introduced more incrementally, over two courses. The restructuring of billable hours does not increase the number of credit hours required of English 101R student, but merely spreads the additional assistance (and time-on-task) over two semesters. Approximately 60% of our students are placed into English 101R rather than 101. The current structure of English 101R, with five classroom hours, was designed before the computer revolution on college campuses. It is now possible to instruct students through asynchronous exchanges, freeing the writing laboratories for all first semester composition students. Regular English 101 students also exhibit ongoing weaknesses in the areas of expression and research/documentation. The "Expression Workshop" (the extra billable hour) will allow writing faculty to tailor instruction to individual needs, and will provide for one-on-one consultation with the instructor for the purposes of developing the writing portfolio.

ORAL COMMUNICATION

Appendices III-J and III-K report assessment results for the Fall 2003 and Spring 2004 semesters. The results reflect a very significant improvement in student mastery of the objectives, although some skills were mastered more consistently than others.

Scientific and Quantitative Reasoning

Carroll Community College assesses Scientific and Quantitative Reasoning through our evaluation of the Mathematics Core Competency as well as the Reasoning and Problem Solving Core Competency. for the purposes of this report, analysis of Mathematics will be covered in this section and Reasoning and Problem Solving will be covered in the subsequent section, Critical Analysis and Reasoning.

Among the incoming students tested using the Academic Profile in Fall 2001, the mean score was 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. At Level 1, a student is able to:

- solve word problems with arithmetic (not requiring conversion of units)
- solve problems using the informal properties of numbers and operations
- solve problems requiring a general understanding of square roots and squares of numbers
- solve a simple equation or substitute numbers into an algebraic equation
- find information from a graph

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. his data may be found in Appendix IV-A.

Critical Analysis and Reasoning

Carroll Community College has three Core Competencies that, together, reflect the Middle States competency of Critical Analysis and Reasoning. These three Core Competencies are Reading, Reasoning and Problem Solving, and Metacognition. Each will be discussed separately in the following pages.

READING

The Academic Profile measures Reading through both norm-referenced and criterion-referenced sub-scores for critical thinking. (It should be noted that the criterion-referenced sub-score for critical thinking combines critical thinking with reading.) In the Fall 2001 sample of incoming students, the mean sub-score for Reading was 115.9, placing Carroll's incoming students in the 62nd 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 reading and analysis). Among the Spring 2002 sample of students with 30 or more credits, the mean norm-referenced sub-score was 118.2 placing Carroll students in the 29th percentile nationally of sophomores at Associates of Arts institutions. 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. 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. This data may be found in Appendix V-A.

REASONING AND PROBLEM SOLVING

The Academic Profile measures Reasoning and Problem Solving through both norm-referenced and criterion-referenced sub-scores for critical thinking. (It should be noted that the criterion-referenced sub-score for critical thinking combines critical thinking with reading.) In the Fall 2001 sample of incoming students, the mean sub-score for Critical Thinking was 109.6, 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. This data may be found in Appendix V-B.

METACOGNITION

Carroll is currently piloting the assessment and collecting baseline data.

Technological Competency

Assessment results from the fall 2003 semester indicated that, overall, students exceeded the Technology Assessment Group's expectations. Results can be found in Appendix VI-B. Students were most successful using word processing tools and least successful in using the spreadsheet.

Information Literacy

The following assessment results provide insight into the Information Literacy Core Competency:

- English 101 student writing portfolio data is collected each semester regarding research and documentation. A rubric is used by English faculty to evaluate portfolios includes evaluation of student's ability to do research and document their sources. In Fall 2001 69% were rated as passing in that area. The same percentage passed in Fall 2002. In Spring 2002 77% passed. In Fall 2003, research and documentation were evaluated separately. For research, 89% passed, while for documentation, 76% passed.
- The library collects data on the number of library instruction sections by semester. Library instruction sessions have been steadily increasing from 48 in 1994 to 120 in 2004. (Statistics include use of library classroom for follow-up research without a librarian present.)
- A web site evaluation assessment was given to all Speech 101 classes: to some Speech 101 classes before library instruction and to some after library instruction in Spring and Fall 2001. Student scores improved slightly after library instruction. Almost 59% of the students (both pre and post combined) did not pass the exercise in

Spring 2001 and 52% did not pass in Fall 2001. However, data collected in Psychology 101 in 1999 showed a significant improvement in web site analysis after targeted library instruction.

Conclusions

Learning outcomes assessment at Carroll has a long history. In the early nineties, the academic leadership recognized the importance of standardizing course objectives and identified the need for increasing accountability to our constituents, including student, taxpayers, accrediting agencies, and local, state, and federal governmental entities.

Recognizing the central role of faculty in the improvement loop, the process of learning outcomes assessment has been faculty-centered and faculty-driven. As a result of this process, there have been significant changes to instruction, particularly in the area of written communication.

Institutional policy also drives the assessment process at Carroll Community College. Recently, the faculty promotion process was revised. The new faculty promotion process requires that faculty members design, implement, and evaluate a significant learning outcomes assessment effort as a prerequisite for promotion to the next rank. Considerable support is available to faculty as they develop these projects.

Finally, results of the Academic Profile demonstrate superior performance by Carroll Community College students when compared to their peers at other Maryland community colleges.

While there has been considerable success in the area of learning outcomes assessment, Carroll also faces a number of challenges. In the upcoming year, Carroll is working towards improving the process of program level assessment and integration of significant learning outcomes assessment into program review process.

Like many other colleges, Carroll Community College staffs a large number of classes with adjunct faculty. As this group of faculty experiences a higher turnover rate than that of full-time faculty, a significant on-going effort is needed to develop adjunct faculty in course, program, and institutional outcomes assessment.

As good stewards of student tuition and taxpayer dollars, it continues to be important to weigh the efficiency and effectiveness of our outcomes assessment efforts. Over time, some assessment activities have yielded little benefit when measured against the costs of collecting, analyzing, and reporting the results. We will continue to evaluate our assessment efforts in an attempt to develop "best practices" in measuring student learning. The assessment of student learning outcomes at the course, program, and institutional level is essential to Carroll Community College's ability to meet its mission.

Carroll Community College has been engaged in developing a learning outcomes assessment program for ten years. It has defined nine core competencies for the general education curriculum; all five of the general education competency areas identified by Middle States are included.

Direct assessment of writing, quantitative and scientific reasoning, and critical thinking has been conducted by administering the ETS Academic Profile at the institutional level. Also at the institutional level, all English 101 students write papers that are evaluated for both writing skills and information literacy proficiency using rubrics. Direct assessment methods conducted at the course and program level include faculty-developed post and pre-post exams scored by a rubric, as well as portfolio evaluations scored by a rubric

Results from every type of assessment conducted at Carroll were discussed in the report. Many examples of ways in which assessment results have affected curriculum and learning were provided. One example came from the English department: as a result of outcomes data evaluation, Carroll changed the English curriculum: a new course (Advanced College Writing) was added which will require students to write a comprehensive research paper; a restructuring of the sequence of writing courses has also been proposed.

Cecil Community College

Institutional Executive Summary of 2004 Learning Outcomes Assessment Report

Assessing learning outcomes at Cecil Community College does not restrict how individual academic units, programs, or divisions measure learning in their area. Rather, the assessment effort is designed to provide each academic unit, program, or division the flexibility to establish assessment criteria that addresses the unique aspects of each instructional area. The focus of this report is centered on five competency areas, namely: written and oral communication, scientific and quantitative reasoning, critical analysis and reasoning, technological competency, and information literacy. Discussions of each competency area is based on how the College defines, measures, and use the results of student learning outcomes to improve institutional effectiveness.

Beginning in 2002, Cecil Community College developed a comprehensive academic plan that supports the institution's Strategic Plan. It was agreed that the College would also develop an Institutional Assessment Plan to complement the actions outlined in the Academic Plan. Specific strategic directions were identified to enhance the College's operational efficiency and to advance the division of academic program's ability to establish and document learning outcomes.

The following objectives serve as the overarching priorities that are addressed to advance institutional effectiveness at the College:

- Develop and implement student learning outcomes **across the curriculum** to ensure 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 ensure 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 ensure that each learner who enters the institution will acquire fundamental skills and knowledge in a specific subject area.

Definition of Competencies

Cecil Community College defines each of the five general education competency areas as follows:

1. "College-level proficiency in written and oral communications."

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

Department of English and Reading developed some criteria for A-, B-, C-, D-, and F-level writing. College-level oral communication's competency is defined as improved oral expression, listening, critical thinking, and message analysis, and enhanced appreciation and understanding of various forms of expression/communication.

2. "College-level proficiency in scientific and quantitative reasoning."
Definition: Cecil Community College defines college-level competency in scientific reasoning as students' ability to articulate the elements of the scientific method, and 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. "College-level proficiency in critical analysis and reasoning."
Definition: 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. "College-level proficiency in technological competency."
Definition: 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. "College-level proficiency in information literacy."

Definition: 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.

Indirect Measures of Student Learning

Cecil Community College used a number of indirect strategies and measures to qualitatively and quantitatively assess student learning outcomes. Most of the indirect measures undertaken are at the program or institutional level; however, a few that apply at the course level will be evident in the list below. The following list applies to different competency areas under consideration:

1. First-day handout and/or syllabus review by the department chair to confirm that the Student Learning Outcomes, as stated in the Departmental Guidelines for English 101 instruction (Freshman Composition) and for English 102 instruction (Composition and Literature), are included with appropriate learning activities to support the outcomes.
2. Completed survey submitted to full-time instructors at the end of each semester by students using the Student Evaluation of Instruction Questionnaire.
3. Completed survey submitted to adjunct instructors at the midpoint and at the end of each semester by students using the Student Evaluation of Instruction Questionnaire.
4. Completed surveys submitted to the librarian by students following instruction in information discovery, analysis, and usage.
5. College-wide Student Opinion/Satisfaction Survey results.
   a. In-house survey instrument on College Outcomes.
   b. Occasional use of nationally-normed survey instruments, e.g. CCSSE.
6. Observation and analysis of adjunct instructors' classes conducted by Departmental Chair to determine the amount of class time spent in active learning geared toward increasing respective proficiency level.
7. Observation and analysis of full-time instructors' classes conducted by the Vice President of Academic Programs (and/or the VP's designee) to determine the amount of class time spent in active learning.
8. Reports on Grades Analysis by department.
9. Grades on assignments not accompanied by a rubric.
10. Student ratings of their knowledge and skills and reflections on what they have learned in the course/program.
11. Study of Remediation and Graduation at Cecil Community College, 1999-2002.
12. Analysis of assessment techniques, results, and instructional changes submitted by fulltime instructors to the Vice President of Academic Programs in the Annual Report of Professional Activities.
13. Analysis of assessment techniques, assessment results, and consequent instructional changes submitted to the Vice President of Academic Programs annually in the Professional Self-Evaluation Portfolio for faculty during their first four years of employment *or* data submitted triennially in the Professional Self-Evaluation Portfolio for faculty starting with their fifth year and continuing through all subsequent years of employment.
14. Yearly evaluative written summary by the Vice President of Academic Programs (and/or the Vice President's designee) and yearly evaluative conference with the Vice President (and/or the Vice President's designee) regarding instructional performance in general and use of assessment techniques, results, and consequent instructional changes in particular.

15. Writing-Across-the-Curriculum initiative conducted by a full-time English instructor in cooperation with members of other departments/disciplines: end-of-semester writing proficiency workshops using student writings in other departments.
16. Semester Report: Reading/Writing Center Survey of Student Satisfaction.

Direct Measures of Student Learning Outcomes

Because student learning outcomes assessment at Cecil Community College does not restrict how individual academic units, programs, or divisions assess learning in their areas, the flexibility allows direct measures used to vary from one program to another.

Direct assessment criteria or measures were used to address the unique aspects of each instructional area as follows.

In career programs (Business & Commerce Technology, Computer Information Systems, Electronics Technology, Emergency Medicine Technology, Law Enforcement, Nursing, Transportation & Logistics, Visual Communications), selected learning outcomes measures used include:

- Completion of capstone projects in visual communications
- Problem based learning scenarios in Transportation and Logistics
- Oral presentations during scientific peer-reviewed process
- Use of the California Critical Thinking Skills Test in nursing
- Developed course syllabi in outcomes format
- Completion of Mosby-RN and Mosby-PN Assessment Tests in nursing

In General Studies, a variety of assessment processes and measures were used:

- Developed course syllabi in outcomes format
- Use of the C-Standard to grade written work
- Implemented the use of rubrics in oral communications presentations
- Started Math Across the Curriculum initiative
- Offered English assignments in computer-assisted classrooms
- Use of templates and wizards to create web sites
- Developed courses and seminars to increase awareness of race, ethnicity, language, culture, gender, and individual diversity on learning and teaching
- Developed a course to enable students understand how popular music influence film scores
- Participation in a performance in front of an audience
- Understanding spatial awareness and stage directions

In Transfer Programs (Arts & Sciences, Business Administration, Education), the following assessment approaches/measures were used:

- Developed course syllabi in outcomes format
- Use of portfolios

- Case studies to analyze different situations
- Completion of PRAXIS I
- Use of problem based scenarios
- Developed a master budget

Other measures commonly used across the College programs include:

1. Score gains between entry and exit on local tests and projects
2. Team peer evaluation sessions using a rubric
3. Ratings of student skills in the context of class activities, projects and discussions
4. Course embedded assessments, including written work, lab work, and rubric-scored presentations
5. Scores on locally-designed multiple choice and /or essay tests such as final examinations in key courses and accompanied by test blueprints describing what the tests assess

Selected Student Learning Outcome Results & Applications

The use of rubric-based "C" Standards Calibration Workshops has resulted in greater uniformity of grading with respect to statewide writing standards for college students and has enhanced communications between full-time and adjunct instructors.

The use of a presentation rubric has resulted in greater uniformity of grading with respect to oral communication standards. Students are aware of the expectations of an oral presentation and this competency has been enhanced through the use of the rubric in the following courses and programs; Speech, Biology, Education, Nursing, and Visual Communications.

The results of a self-assessment survey of the 2002 class of nursing students at the College showed that students considerably increased their technological skills during the course of their study program. The pre- and post-survey of nursing students in 2002 and 2004, respectively, confirmed positive perception of their improved skills and knowledge of computer technology. Perceived knowledge gained in different skills areas ranged from 0-53% between 2002 and 2004. The survey was used to complement other assessment methods for ascertaining student learning related to technological competency required of every student enrolled at the College.

Due to the development of clearly stated student learning outcomes for all courses in the Department of English and Reading, supported by detailed instructional booklets (*Guidelines for English 101 [Freshman Composition) Instruction* and *Guidelines for English 102 [Composition and Literature] Instruction* and syllabi in expanded outcomes format, the fulltime and adjunct English instructors are in agreement with respect to expected student learning.

The College's general education courses have generally contributed to student learning as perceived from the students' self-assessment of their knowledge gains. Repeated student learning outcomes survey results administered to continuing students revealed that the

College's general education courses have contributed to broadening their intellectual interests as well as their thinking and reasoning abilities. Many students ranked ability to write more effectively high as an indication that the College's writing-across-the-curriculum initiative is working. The College hopes to expand this initiative to other competency areas in future.

MHEC Staff Review of 2004 Student Learning Outcomes Assessment Report

Cecil Community College developed an institutional assessment plan to include an outcomes assessment plan in 2002. Cecil's report includes the Operational Plan for the Assessment Strategic Objectives 2003-2005, and discusses progress made.

All five general education competencies have been defined (although the technology competency definition is under review and has not been finalized). Student learning outcomes are assessed across the curriculum, within both programs and courses.

Cecil uses direct measures of assessment such as evaluation of projects, exams, and portfolios scored by rubric, capstone projects and pre-post tests. Indirect methods include student satisfaction surveys, alumni surveys, and course grades. Examples of results were provided for all general education competencies. The report also discussed many instances where assessment results were used to improve curriculum and student learning. For example, in Accounting, based on analysis of assessment, faculty adjusted the way they taught the subject of bonds and changed the way they assigned exercises and problems, resulting in higher grades on tests and assignments.

Chesapeake College

Institutional Executive Summary of 2004 Learning Outcomes Assessment Report

A major aspect of Chesapeake College's mission is to provide "affordable, quality, educational experiences and support services, a focus on student achievement, choice in instructional delivery, and innovative use of instructional technology. "In order to accomplish this mission, the institution pursues Middle States Commission on Higher Education (MSCHE) principles and embraces the concept of assessment as a continuous source of knowledge essential for improving student learning outcomes. According to MSCHE:

> *The systematic assessment of student learning is essential to monitoring quality and providing the information that leads to improvement. Implemented effectively, the assessment of student learning will involve the shared commitment of students, administrators and academic professionals. The assessment of student learning has the student as its primary focus of inquiry. It is related to the assessment of institutional effectiveness, which is important as a means to monitor and improve the environment provided for teaching and learning Because the purpose for assessing student learning is to help students improve and to maintain academic quality, the assessment measures chosen should be those that provide the students, faculty, and others with information about student learning that is specific; address questions that faculty and the institution care about; and are useful for assessing and enhancing academic quality.*
> (Characteristics of Excellence in Higher Education, 2002, p.50)

The process in which departments identify and align appropriate student learning outcomes with the College's mission varies across the institution. For some, it is more obvious than others. Nursing, for example, assesses this relationship for accreditation purposes. Other departments align outcomes and the institutional mission in a more decentralized, informal process. Some departments ensure this consistency by meeting regulations for certification. In a few departments (e.g., Humanities), individual professors select the learning outcomes they deem important for a course. No matter the methods for identifying and aligning learning outcomes at the departmental level, collaboration is the common thread.

Faculty work closely with their respective discipline-specific affinity groups, professional associations, and colleagues across the state and nation. They are updated on state established standards, which contribute to faculty development of student learning outcomes. For instance, the learning outcomes for written papers institution wide are reflective of standards for the "C" paper developed by a Statewide English Composition Committee and approved by the Maryland Chief Academic Officers. Learning outcomes in mathematics, biology, and history courses also reflect state, local, and national standards and align with partner institutions through work in the QUE Project. Learning outcomes for education courses reflect competencies established through statewide committee deliberations and align with the State's COMAR regulations, Maryland Teacher Imperatives, and NCATE guidelines.

The means in which student learning outcomes are measured across departments parallels the consistency in which they are identified. Currently, knowledge that students achieve expected outcomes comes from a diverse array of instruments: the Faculty's feedback through grades, portfolio and performance reviews, and anecdotal records; periodic and end-of-year assessment reports of operational plans from academic departments; and student self-reports of achievements and satisfactions while at the College, at transfer institutions. Some departments use standardized state or national tests that the students take for acquiring a license (e.g., nursing, radiation technology) or by statewide outcomes written for a given program (e.g., teacher education). In other departments, faculty have jointly-determined common outcomes for courses in a program (e.g., English, math, biology, CIS). Other influences derive from the faculty's knowledge of the field, requirements of higher level educational programs, or standards identified by faculty from multiple colleges (e.g., the QUE project). Occasionally input from other sources (e.g., graduate and alumni surveys, employment rates, or completion rates) shapes the identification of course or program outcomes. Responses from the *2003 Faculty Self-Study Survey* display the variety of student learning outcomes used by Chesapeake Faculty at the course and program level, sorted by the frequency of their use:

How often do you use the following measures of student learning in your courses?	Extensive (=4)	Moderate (=3)	Occasional (=2)	Not at all (=1)	Mean Rating
Grades that are based on explicit criteria related to clear learning goals	66%	28%	0%	6%	3.53
Examinations and quizzes	62%	28%	9%	2%	3.49
Class discussion participation	60%	29%	8%	2%	3.48
Research projects	26%	46%	20%	9%	2.89
Term papers and reports	30%	38%	21%	11%	2.87
Rubric (a criterion-based rating scale) scores for writing, oral presentations and performances	33%	22%	27%	18%	2.71
Observations of fieldwork, internship performance, service learning or clinical experience	32%	14%	16%	39%	2.39
Case study analysis	20%	23%	25%	32%	2.32
Artistic performances and products	16%	9%	28%	47%	1.94
Pre/Post tests	4%	17%	43%	36%	1.89
Standardized tests	7%	15%	20%	59%	1.70

At the program level, are the following used in the degree program(s) in which you teach?	Yes	No
Grade Point Average	74%	26%
Employer and internship supervisor ratings or students' performance	56%	44%
Department constructed test	53%	47%
Pre/post tests	51%	49%
Capstone courses	47%	53%
Thesis/project	47%	54%
Alumni surveys	46%	55%
Portfolio assessment	40%	60%
Pass rates or scores on licensure, certification, or subject area tests	38%	62%
Standardized tests	38%	62%
Job placement rate	31%	69%
Student publications or conference presentations	16%	84%

Students find out about learning outcomes in several ways. Course syllabi serve as the primary means for informing students to the outcomes for a given course. Core course of study documents on file in the Division offices and in the office of the Vice President for Academic Services provide a listing of student learning goals and objectives at the course level. Students will find Program outcomes in the College's *Catalog*, Program brochures/flyers, and in the Student Nursing Handbook. College-wide, the College

Catalog, the College website, and the *Strategic Plan* contain the broad learning goals and objectives of the College and list general education competencies. The following results from the *2003 Student Self-Study Survey* demonstrate student awareness and satisfaction with student learning competencies and General Education requirements:

Please rate your agreement with the following statements:	Agree (=2)	Disagree (=1)	Not Sure/ Does not apply	Mean Rating
I can easily find the learning goals and objectives for specific courses and programs.	85%	11%	4%	1.89
I am aware of the General Education (Gen. Ed.) competencies that the College expects me to master through my course of studies.	83%	8%	9%	1.91
I find the descriptions of General Education requirements in official publications of the College to be accurate and clear.	79%	10%	11%	1.88
I have progressed in achieving the General Education competencies through my course of studies.	73%	8%	19%	1.90
I apply the skills and abilities developed in General Education courses to my major course of study.	68%	13%	19%	1.84
I have benefited personally and intellectually from the General Education courses.	74%	9%	16%	1.89
Tests, quizzes and other kinds of classroom assessments are appropriate ways to evaluate my academic performance.	81%	16%	3%	1.83

Up to this point, assessment of student learning typically occurs in at the individual course level. Because most of this, instructional improvements have occurred at a relatively local level within the college-wide environment. Discussions on learning and outcomes assessment began at the 2001 Faculty Retreat and accelerated at a workshop in March 2003. Since then, the Faculty has worked to develop a coherent articulation and implementation of student learning outcomes for courses and programs of the College. Departments have collaborated in developing a college-wide consistent format for reporting student learning outcomes in every course and describing the assessment methods linked to each learning outcome. The course and program assessment plans currently under development should give more focus and direction in this area, and thus, more assurance of consistency in the use of tools for measuring student learning. They will also help to connect course-learning outcomes with more general program outcomes. Plans for the Faculty In-Service this fall will concentrate on student learning outcomes assessment and includes presentations of new assessment tools and directions made by Faculty of other Community Colleges in the state that have recently gone through MSCHE accreditation process.

Probably the College's most extensive assessment of student learning outcomes occurs in the Interdisciplinary Course (IDC) course. Student performance in the IDC course, designed as a capstone course requiring the application of GE competencies, provides evidence of student proficiency, upon degree completion. The course requires students to increase their ability to discover, analyze, and synthesize knowledge, critically examining information from a variety of perspectives and major fields of study. A number of different assessment activities measure student learning in this course, such as class participation, completion of a weekly journal analysis of assigned readings, a written lab report utilizing the scientific method, a research paper on social science issues, a Humanities paper, and a culminating written and oral collaborative presentation.

Assessment of student learning does also occur at the institutional level. Probably the most significant effort occurred in Spring 2004 when Chesapeake participated in the Community College Survey of Student Engagement (*CCSSE*). Almost 400 randomly selected students from Chesapeake and over 32,000 students from 161 other community colleges across the country participated in *CCSSE*, which provides a means of assessing community college education. The survey asks questions about institutional practices and student behaviors that are highly correlated with student learning outcomes. *CCSSE* results should help the college focus on good educational practices that promote student learning. Although the results of the survey are still under review, a preliminary analysis reveals insight into the quality of Chesapeake and its students versus comparable peers. An overview of the results shows the College scored above the national mean for small colleges and all colleges in most areas. Additional institutional assessment with student learning outcomes components include the *2003 Student Self-Study Survey,* which was developed in conjunction with the College's Self-Study, the Chesapeake College Graduate Survey, and the MHEC Alumni Survey.

Departments regularly use student outcome data to adjust both teaching strategies and curricula. The specific process varies depending on the departments involved, but the information/data derived from student learning assessments applies to the improvement of the teaching learning process. Depending on outcome results, individual faculty, faculty within a department, or faculty members with their Division Dean discuss and use formal (e.g., internal program review reports) and/or informal assessment information to make modifications. Department Chairs and Academic Deans use relevant analyses to determine the causes and select measures for addressing undesired outcomes occur. Such measures have included changes in instructional materials, instructional strategies, assessments, resources, and equipment. Specific recent uses of outcomes information to guide improvements in various programs include the development of a supplemental instruction curriculum (Nursing), selection of textbooks (Teacher Education), choice of content emphasis (English), and revision of course objectives (CIS).

The College is currently in the process of developing a comprehensive institutional assessment plan. This plan will systematize the processes for assessing student learning outcomes, collecting and disseminating assessment information, and using assessment results to improve teaching, learning, and the College as a whole. In the future, assessment information will guide necessary revisions of courses and programs, as well as indicate implications for college-wide changes.

Following Maryland Higher Education Commission guidelines, the sections that follow outline institutional activities and findings related to five competencies identified in Standard 12 of the MSCHE accreditation process and associated with general education and essential skills. The five competencies include written and oral communication, scientific and quantitative reasoning, critical analysis and reasoning, technological competency, and information literacy.

These competencies are among those within Chesapeake's General Education Program requirements, which represent a core curriculum for all associate degree-seeking students.

The goals of the Program are to provide students with:

- the awareness of the challenges of a modern, technological society;
- the skills to express themselves clearly and creatively;
- the ability to interpret and analyze information, to solve problems, to compute mathematically; an appreciation of the nature, value, and diversity of cultures.

Students graduating with an Associates Degree from Chesapeake will have obtained the following competencies in each of the designated areas through the General Education courses included in their Program of Study. In addition, there will be specific competencies developed and related to the subject matter of each course within their individual Program. (Those competencies to be emphasized in this report are in bold):

1. **communicate in oral and written English.**
2. read with comprehension.
3. **think critically.**
4. **reason abstractly.**
5. **understand and interpret numerical data.**
6. **understand the scientific method.**
7. recognize and appreciate cultural diversity.
8. appreciate the nature and value of the fine and performing arts.
9. **demonstrate information literacy.**
10. **apply technology to learning.**
11. apply knowledge and skills to foster ethical behavior and civic engagement.
12. enhance life-long learning.

Additional results from the *2003 Faculty Self-Study Survey* address the General Education Program and some of these competencies specifically:

How often do you use the following measures of student learning in your courses?	Strongly Agree (=4)	Agree (=3)	Disagree (=2)	Strongly Disagree (=1)	**Mean Rating**
I am aware of the details and process by which the General Education program as a whole is assessed.	13%	49%	34%	4%	2.70
There is a process in place to determine General Education competency areas that need to be updated and/or new sets of competency areas included.	10%	83%	8%	0%	3.03
The students' major areas of study utilize the skills and abilities developed in General Education.	15%	76%	7%	2%	3.04
I make explicit to students the General Education Competencies incorporated into my course work.	26%	41%	28%	4%	2.89
Means of assessing General Education outcomes are in place.	11%	49%	27%	14%	2.57
The General Education program is developed, owned and reviewed by the faculty.	18%	54%	18%	10%	2.79
Student learning goals and objectives are documented and communicated in my courses.	62%	36%	2%	0%	3.60
Student learning outcomes data result in decisions to modify courses and programs.	41%	46%	11%	2%	3.26
Effective uses of technology are incorporated throughout courses and programs of the College.	30%	51%	15%	4%	3.06
The use of information technology plays an important role in my teaching.	39%	49%	12%	0%	3.27

Chesapeake College began discussions on learning and outcomes assessment in 2001, followed by a faculty workshop in 2003. Since then, the faculty has been developing student learning outcomes for courses and programs. In fall 2004, a planned faculty in-service training event will focus on assessment and will include presentations by faculty from other community colleges in Maryland that have recently undergone the MSCHE accreditation process.

All general education competencies have been defined. At Chesapeake, most learning assessment occurs at the course level and has been developed primarily in the Interdisciplinary Course, a capstone course requiring the application of general education competencies. In writing, a rubric is used to evaluate writing samples. At the institutional level, indirect assessment methods such as alumni surveys and the Community College Survey of Student Engagement (CCSSE) have been used (the CCSSE is a nationally-normed survey that asks about behaviors found to be correlated with student learning).

Survey results (from alumni and CCSSE surveys) regarding general education competencies were presented. In terms of improving curriculum, formal and informal assessment information has been used to guide improvements in various programs. Examples given included development of a supplemental curriculum in Nursing and selection of textbooks in Education.

Frederick Community College

Institutional Executive Summary of 2004 Learning Outcomes Assessment Report

Student learning outcomes assessment at Frederick Community College (FCC) is a comprehensive effort focused on measuring student academic achievement against stated institutional, program, and individual course level goals. Consistent with the Middle States Commission on Higher Education (MSCHE)'s *Characteristics of Excellence in Higher Education* Standard 14, FCC considers outcomes assessment of student learning as a means to allow faculty members and professional staff to continuously improve academic programs, teaching, and learning. It is through the analysis of student learning that we are able to improve learning in a systematic and effective manner.

Under the direction of the Vice President for Learning/Provost, FCC faculty have direct responsibility in developing their assessment plan(s), which include goals, objectives, measurement rubrics, and evaluation of the assessment data. FCC faculty is then responsible for implementing improvements to courses or programs based on the outcomes of those assessments.

The Provost has assigned a Student Learning Outcomes Assessment Committee (SLOAC) comprised of faculty and administrators to oversee the direction and policy making of FCC's student learning outcomes assessment. During the 2003-04 academic year, the Committee met monthly until all General Education assessment plans had been written and approved. During the 2004-05 academic year, this committee will meet twice a semester to discuss progress and issues relating to all student learning outcomes assessment activities. Throughout the year, the Outcomes Assessment, Planning & Research Department (OAPR) supports faculty for their assessment activities by providing training, assessment tools and one-on-one advisement.

Over the next three years, the College intends to enhance its assessment program by assessing student learning in additional General Educational courses. By doing so, FCC will improve its student-learning based decision making.

Assessment Activities

The College's assessment activity of General Education goals is distributed over a three-year period (fall 2003-fall 2006). During this period, each General Education goal will be assessed at least once and changes to courses and instructional methods will be made as needed. Although student learning outcomes assessment activities at FCC are being conducted in two areas (General Education and Career Programs), based on MHEC guidelines and for the purpose of this report, only General Education student learning outcomes assessment is discussed here.

- **General Education**:
  To date, FCC has begun assessing eight of its ten General Education goals:

Goal I – Communication – Writing & Listening/Speaking	**Goal II – Critical Thinking**
Goal III – Social Science	**Goal IV – Quantitative Problem Solving**
Goal V – Science	**Goal VI – Technology**
Goal IX – Wellness	**Goal VIII – Visual & Performing Arts**

  For each goal, faculty-based committees wrote a *Student Learning Assessment Plan.* Each of those eight plans includes a statement on the learning goal and objective(s); what specific projects or assignments are used to enable students to learn these goals and objectives; what methods are used to evaluate student learning; and the timing and frequency of the assessment initiatives.

  All General Education assessment plans are approved by the Provost and Dean of Arts & Sciences. Recommended adjustments by the Provost or Dean to any proposed student learning outcomes assessment plan are accomplished collaboratively with the General Education goal team leader(s). An annual report on assessment activities and results is submitted to the Provost and other College officials to ensure they are aware of all student learning outcomes. These reports will also be published and maintained on the OAPR intranet site.

  During the 2005 academic year, ***Information Literacy*** will be included as an FCC General Education goal. An outline of proposed assessment activities for this goal is described in detail in the progress report section of this report.

- **Evidence of Assessment Information Used**
  After completing the first round of assessments, the faculty is required to report the results of the assessment data and any suggested changes that might be implemented to their curriculum. The *Student Learning Assessment Plan Report* states the General Education goal, learning objective(s), a summary of the findings regarding student learning for the respective General Education goal/objectives, a summary of how assessment results in specific areas are being used for General Education course improvement, and if needed, a request to make a revision to the General Education goal for next year. These assessment reports provide evidence to the College and faculty of the success rate of student learning and show in what area(s) a course might be insufficient to meet the stated learning objectives.

- **Measuring Strategies**
  The *Student Learning Outcomes Assessment Plans* ensure that a variety of direct and indirect measures, and not grades alone, are used to evaluate student learning. The review and approval process by the Provost, Dean of Arts & Sciences, SLOAC, and the OAPR Department assures that the breadth and type of assessments used and the usefulness of the assessment methodology adequately measures student learning and achievement. In FY 2004, FCC faculty created and applied course or discipline specific rubrics in assessing student learning outcomes. These rubrics have been

applied to different data collection methods such as projects, reflective writing assignments, term papers and reports.

MHEC Staff Review of 2004 Student Learning Outcomes Assessment Report

Frederick Community College has formulated a three-year plan (2003-2006) to implement assessment activity of general education goals. To date, Frederick has begun assessing eight of its ten goals. For each goal, faculty –based committees wrote a student learning assessment plan.

Four of the five general education competencies have been defined. Information literacy is currently in the proposal stage in terms of being a Frederick general education goal; it is expected that learning objectives for this competency will be finalized in 2005.

Faculty-generated student learning outcomes assessment plans ensure that direct and indirect measures are used to evaluate student learning. Frederick focused on direct measures in its report. In FY 2004, faculty created and applied course or discipline-specific rubrics to assess writing and oral communication, quantitative problem solving, and technology competencies. Methods to assess critical reasoning and information literacy will be developed in the coming academic year.

The report discussed results from the learning assessment activities conducted in 2004. Based on analysis, assessment methods are being refined—for example, the rubric to evaluate writing samples in English has been extensively revised and will be pilot tested in fall 2004.

Garrett College

Institutional Executive Summary of 2004 Learning Outcomes Assessment Report

Garrett College sees student learning as the fundamental goal of education and effective teaching as the principal means of achieving that goal. Garrett College's faculty and administration use outcomes assessment as a means of determining whether and to what degree the institution's stated mission, goals, and objectives are being met. The College believes that outcomes assessment provides meaningful feedback to students, faculty, administrators, and other interested parties about patterns of learning and student performance over the range of curricula. Thus, assessment is essential at all three levels of curricular focus: general education, academic or career programs, and individual courses. Garrett College is pleased to have begun developing and implementing assessment at all three levels, and it anticipates a complete implementation of outcomes assessment by Spring 2008.

In fact, since 1997, Garrett has worked to develop a comprehensive outcomes assessment program that addresses each of the three levels of student learning. By designing and implementing a sound, comprehensive outcomes assessment plan that engages students, faculty, and administrators in ongoing evaluation of the teaching/learning process, Garrett College believes it will maintain its identity as an institution marked by integrity, high academic standards, and teaching excellence.

In initially developing the College's general education program outcomes assessment plan, Garrett's faculty worked as a team from Fall 1997 through Fall 1998, prior to the Middle States accreditation visit in Spring 1998. Modifications to the plan were undertaken in 2003 and 2004. The plan now indicates that students earning an associate's degree (A.A., A.A.S., or A.A.T.) will demonstrate satisfactory achievement in the following eight areas prior to degree completion:

- Information Literacy Skills
- Communication Skills
- Critical Analysis and Reasoning Skills
- Scientific Literacy and Quantitative Reasoning Skills
- Information Management Skills
- Cultural and Global Perspective Skills
- Personal and Interpersonal Skills
- Skills Illustrating Academic and Technical Proficiency in the Major

These skills parallel and build on those identified in Standard 12 of the Middle States' "Characteristics of Excellence in Higher Education," and their definitions reflect the combined energies and reflections of Garrett College's full-time faculty and administration:

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 use the needed information effectively. It is common to all disciplines and requires integration across the 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 mathematical or statistical models in interpreting quantifiable phenomena and the use of 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 purposes.

Global perspective and cultural appreciation skills pertain 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.

Skills demonstrating academic and technical proficiency in the major pertain to an ability to illustrate multiple levels of intelligence, including demonstrable practical skills in areas particular to a student's program major.

For each of the aforementioned skills, the College has developed stated competencies; strategies to enhance the skill; outcomes; and direct and indirect measures for each outcome. Thus, the College's plan for assessment of the general education program has been completed.

At the next level, the College is dedicated to finalizing its plan for assessing academic programs. By Spring 2004, 75% of programmatic outcomes assessment plans had been submitted to and approved by the Dean of Academic and Student Affairs: the remaining 25% will be submitted by October 2004. These individual program plans are modeled after those outlined in Student Learning Assessment: Options and Resources (Middle States Commission on Higher Education, 2003). Data will be gathered based on the means of assessment identified for each program (Spring 2006); the results will be

analyzed in order to evaluate the program's success in meeting its stated goals and objectives (Fall 2007); and strategies for improvement will be devised (Spring 2008).

In addition to finalizing programmatic outcomes assessment plans, faculty and administrators are engaging in developing outcomes assessment plans at the individual course or classroom level. Work on this phase of outcomes assessment began in Fall 1996, when faculty revised many of their course syllabi to include measurable objectives. A small number of syllabi have not been revised, principally in courses staffed by adjuncts, but it is anticipated that all course syllabi will include such objectives by January 2005. Additionally, the majority of the faculty already employ classroom assessment, but as at most institutions, such assessment is historically used for the purpose of evaluating individual student performance rather than improving teaching. Garrett's faculty, however, are committed to instructional excellence, and to that end they are making a concerted effort to identify direct and indirect measures for each course they teach and using results to strengthen teaching and student learning. Given the large number of courses involved in individual course assessment, an incremental approach will be taken, with each full-time faculty identifying one general education requirement (GER) course for which to model outcomes assessment measures by December 2005. By Spring 2006, all GER courses will have outcomes assessment measures identified, and by Spring 2007, all courses required for specific programs will have outcomes assessment measures identified, with all elective courses following by Fall 2007. Thus, by Spring 2008, Garrett's three-tiered outcomes assessment plan will be fully operational.

It is important to note, however, that Garrett College is already actively involved in gathering data for outcomes assessment, in analyzing that data, and in using results to improve instruction and student learning. In 1999, when the general outcomes assessment plan was initially implemented, the faculty concurred with the recommendation of the Dean of Academic Affairs to pilot use of the Collegiate Assessment of Academic Proficiency (CAAP) as a means of gauging student outcomes in several of the proficiencies identified in Standard 12 of Middle States' "Characteristics of Excellence in Higher Education." Since that time, the College has collected results from the CAAP test and from a similar instrument (the Academic Profile) administered in 2002. At this time, the College continues to analyze and consider the efficacy of the results yielded by the CAAP test. To date, the College has identified concerns about the efficacy of continuing to use the CAAP test as a direct measure. For instance, it is impractical to administer all six modules of the CAAP; the cohort taking the test nationally is not comparable to GC students since all Garrett graduates are required to take the test whereas at other institutions only sample cohorts are tested; ACT recommends caution in evaluating results for a cohort smaller than 100 students; and early indicators are that the data from the CAAP does not correlate with transfer performance upon leaving Garrett College. A determination about the continued use of the CAAP will be made in Spring 2006, during the same time frame in which results of the test are formally analyzed.

In addition to the CAAP test, the College has and will continue to rely on other direct and indirect measures in assessing competencies at the institutional, program, and course

levels. These measures include grades on assignments that are scored using a rubric; grades on locally designed tests using blueprints; pre- and end-of-term scores achieved on common tests administered in courses; scores on PRAXIS I and II tests as taken by students at GC or after graduation (including content scores on PRAXIS II tests); acceptance rate of students applying to programs at transfer institutions; student performance at Maryland institutions after transfer from Garrett; grades on assignments in GER courses when such assignments are not accompanied by a rubric or scoring guide; grades and passing rates in courses; graduate satisfaction with educational goal achievement and quality of transfer preparation, as measured by exit surveys administered to all graduates; classroom observations; student evaluations of instruction; and information gathered during environmental scans held preliminary to developing the College's Five-Year Strategic Plan on a regular basis.

The College is currently in the process of gathering and analyzing data pertaining to the direct and indirect measures noted above. As indicated in the attached delineation of outcomes plans for specific competencies, Garrett is engaged in ongoing analysis of indicators already available (e.g., passing rates for GER math and communication courses; scores on locally-designed instruments; scores on standardized instruments such as the CAAP and the Nelson-Denny; and student evaluation of faculty instruction). By Fall 2007, the College expects not only to have outcomes in place for each competency but also to have assessed each competency at the institutional, program, and course levels, with the institutional-level assessment occurring first (Spring 2005); the programmatic level occurring next (Fall 2006); and the course analysis occurring last (Spring 2007).

Garrett College is well aware that 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 outcomes as part of an ongoing process begun some time ago and continuing 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 skills, quantitative reasoning skills, and information literacy 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 evaluative 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. In a different venue, in an ongoing effort to maintain academic integrity and high standards, the Director of the Library regularly meets with program directors to discuss ways of assessing students' information literacy skills, and she has piloted a program whereby such literacy is assessed at every stage of the College's language arts program.

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 become increasingly reliant on assessment data in its decision-making processes. As decisions are made, the College will continue striving to 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." Working as a community dedicated to promoting the achievement of student learning, Garrett College will maintain its identity as an institution marked by integrity, high academic standards, and teaching excellence.

MHEC Staff Review of 2004 Student Learning Outcomes Assessment Report

Garrett College has worked since 1997 to develop a comprehensive outcomes assessment program that addresses each of the three levels of student learning. It anticipates a complete implementation of outcomes assessment by Spring 2008.

All general education competencies have been defined. Garrett uses a combination of direct and indirect methods to assess all learning outcomes. Direct methods include nationally-normed tests such as the American College Testing College Assessment of Academic Proficiency (ACT CAAP) and the ETS Academic Profile. Garrett also employs pre-post tests scored using a rubric. Indirect assessment methods include pass rates of general education courses, grade distributions and student surveys (exit surveys and alumni surveys).

The pass rates for general education courses that cover the general education competencies were presented and discussed. Student satisfaction survey data was also provided. According to the report, "...assessment findings will be used to identify areas that would benefit from being strengthened at the institutional, program, and course levels." Examples of ways in which assessment had been used to improve outcomes were not submitted.

The report included a schedule for future administration and analysis of further assessment activity according to the institution's strategic plan.

Hagerstown Community College

Institutional Executive Summary of 2004 Learning Outcomes Assessment Report

Hagerstown Community College (HCC) is committed to making learning its central focus and ensuring the quality and continuous improvement of learning. The College maintains a wide spectrum of college programs and services, with a special emphasis on teaching excellence as measured by verifiable student academic achievement. Thus, the articulation of clear expectations for student learning and the assessment of this learning at the course, program and institution level are basic to the mission of HCC.

Most assessment done prior to 2003 was done on a project-by-project basis and focused on occupational programs. In 2003, a work group comprised primarily of occupational program faculty developed Program Standards and Quality Indicators for occupational programs. The Program Standards and Quality Indicators are measures for assessing program effectiveness and include retention; completion; placement; licensure/certification; and workplace readiness.

In Fall 2003, Academic Affairs developed six institution-wide learning goals to guide the process of determining program and course learning goals. The institutional goals include the demonstrated ability: to function effectively as a team member; to practice responsible citizenship; to use technology effectively; to think critically; to communicate effectively; and to focus on individual development and lifelong learning. A matrix of these goals and program goals was developed for assessment of occupational programs, transfer programs, general education, developmental education, and continuing education. The related learning outcomes to be assessed provide an interconnected framework between courses, programs and institutional units such as Student Affairs.

HCC is building a culture of accountability, data and evidence in the area of general education. Highlighted in the Student Learning Outcomes Assessment Progress Report are key components that have been developed over the last two years and are in the process of implementation. Most notably these include the College's new planning, budgeting and assessment model and the Student Learning Outcomes Assessment Plan, written in Spring 2004 with implementation in Fall 2004.

Assessment results have been used since 2002 as part of the College's new planning, budgeting and assessment system. The ability to integrate outcomes and other performance measurement data into the assessment process was limited but is dramatically improving through this system, which flows directly from the College's mission, vision and strategic goals. Student assessment data are used in annual unit planning meetings, a primary component of the annual planning, budgeting and assessment model, to support activities and budget requests for the following fiscal year, including professional development and technology upgrades. Assessment information and data support collaborative decision-making by faculty and academic

officers at planning meetings where ideas and data related to curriculum change are reviewed and decisions made. This model helps ensure the alignment of vision, mission, goals, outcomes assessment, and resource allocations.

In tandem with this process, a comprehensive learning outcomes assessment model will play a critical role in helping to guide and shape the College's preferred future. Beginning in Fall 2004, the recently developed Student Learning Outcomes Assessment (SLOA) Plan will address each of the core general education competencies. Initially, assessment will be done at the course level. Assessment instruments developed and used will measure the impact Hagerstown Community College is having upon its students' knowledge, skills and competencies consistent with its institutional learning goals.

College resources and support are crucial to the success of this plan. These resources include a dedicated SLOA office, resource center, and Outcomes Assessment Coordinator, who will coordinate student learning outcomes assessment at the College. Working closely with the Academic Council, Institutional Research (IR), and other personnel of the College, this person will assist faculty and project leaders with design, management and analysis of SLOA activities. The IR unit has expanded over the last year to include a Research and Assessment Specialist to provide support to the assessment process as well. Additional resources to support faculty and staff will be provided through professional development funds, external grants, and alternative faculty assignments.

Recent surveys have provided information about the student general education experience. In April 2004, a random class sampling of students participated in the Community College Survey of Student Engagement (CCSSE). The CCSSE provides a summary of responses of HCC students, as well as a comparison with other Maryland community colleges and community colleges nation-wide. When asked to rate their knowledge and skills in areas related to general education core requirements, HCC students, as evidenced by mean scores, are comparable to other Maryland and national community colleges. The same is true of responses to the Maryland Community College 2002 Graduate Follow-up Survey.

Crucial elements in building HCC's preferred future include its planning, budgeting and assessment system, its strategic plan, and the Student Learning Outcomes Assessment Plan. These plans and systems are first and foremost about support for teaching, learning, institutional transformation, and the success of students and the community. Consequently, HCC can most productively shape a successful future through having a clear vision, effective planning and resource allocation processes, and meaningful outcomes assessment programs.

MHEC Staff Review of 2004 Student Learning Outcomes Assessment Report

Hagerstown Community College developed a student learning outcomes assessment plan in spring 2004. Specific learning outcomes assessment projects have been initiated in the first year and will continue through 2012 (a timeline was provided in the report).

In 2003-2004, Hagerstown defined general education student learning outcomes in six discipline areas. Most of the Middle States general education competencies are included: written and oral communication, scientific and quantitative reasoning, and information literacy (although its definition more closely resembles the Middle States technological competency concept). Critical analysis and reasoning competency and the Middle States concept of information literacy competency have not been defined.

According to the report, the assessment of student learning has been the responsibility of individual instructors up to this point. The institution is moving toward more programmatic and institutional assessment, however. In spring 2004, Hagerstown administered the ACT CAAP. It has also used indirect measurements: in spring 2004, it administered the CCSSE, and for years has conducted alumni surveys.

Summary results of the CAAP pilot testing were presented. General examples of ways in which course assessment results have been used were mentioned (i.e., evaluating self-paced verses lecture classes in math, evaluating the need for tutoring and teaching assistants in Math and English courses).

Harford Community College

Institutional Executive Summary of 2004 Learning Outcomes Assessment Report

INTRODUCTION

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 1999. HCC submitted a self-study report and participated in an on-site review for Middle States during 2002. The College received a positive review of its efforts in promoting and facilitating academic outcomes as was noted in the Middle States report. In addition to Middle States reporting, a three-year progress report was submitted to MHEC during May 2001. This three-year MHEC periodic report for 2004 will summarize progress in both the process for improving student learning as well the impact of these efforts.

GENERAL EDUCATION AND ESSENTIAL SKILLS COMPETENCIES

Standard 12 of Middle States' accreditation process notes five competencies related to general education and essential skills. HCC adopted these five areas of competency and added personal and self-management skills, interpersonal skills, and culture and society as competencies to be assessed. The competencies measured by HCC are as follows:

1. Communication: use of Standard English to express and receive information using oral and nonverbal cues as well as standard written English.
2. Critical Thinking: judge the plausibility of specific assertions, weigh evidence, assess the logical soundness of inferences, construct alternative hypotheses, and render critical judgments.
3. Science and Technology: demonstrate an understanding of science and technology, their impact on society, daily life and the environment.
4. Computational Skills: apply computational skills in reasoning, estimation, problem solving, and analysis.
5. Information Literacy: recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information from a variety of sources and formats.
6. Personal and Self-Management Skills: emphasize self-direction and enhance self-reliance by establishing goals, developing objectives, and implementing plans.
7. Interpersonal Skills: develop the ability to work cooperatively and effectively with others, maintain positive relations with others, and participate actively to reach common goals.
8. Culture and Society: use an interdisciplinary perspective to recognize cultural and societal diversity; identify how cultural differences impact and influence assumptions, perceptions and personal values; acknowledge the contributions of individuals and groups in a global society.

INDIRECT AND DIRECT MEASURES OF ASSESSMENT

HCC employs multiple measures, methods, instruments, and analyses to determine learning outcomes and competencies. These assessments are conducted primarily at the course level by faculty and deans, at the institutional level by student services and the Office of Institutional Research (OIR), and there are also some assessments conducted at the program level. Examples of **indirect measures** include the following:

- **Institutional: (a)** HCC administers a student satisfaction inventory every two years. The areas measured include instruction, registration, general student outcomes, and academic support. **(b)** OIR is in the pilot phase of developing a "diversity score card". The scorecard tracks the pass rates for white and minority group students in gateway courses and compares these various groups' pass rates to the college's average pass rate for the course. **(c)** OIR administers the MHEC Graduate Follow Up Survey to measure institutional level outcomes. The survey assesses whether graduates transfer to four-year colleges/universities and/or employment. The survey also assesses how well HCC prepared students for transfer or employment and how well the College contributed to proficiency in ten areas of competency.

- **Programmatic: (a)** 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. **(b)** Faculty, program coordinators, academic advisors, librarians, and deans participate in instructional program reviews that are cyclically scheduled every 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.

The following are examples of generic **direct measures** used for each of the eight areas of competency as recorded on current course level assessment forms throughout the College.

1. Communication: demonstrated ability to - develop an accurate technical report; develop a hypothesis or thesis; master grammar and usage by earning a minimum of 80% on related assignments; include a subject, purpose and audience in well developed and coherent paragraphs; orally present a specific topic to the class; successfully complete laboratory reports; comprehend and communicate orally or in writing course-related concepts and terminology.

2. Critical thinking: demonstrated ability to - design and test a solution to a posed problem; collect and evaluate research materials; formulate and develop a clear hypothesis or thesis; suggest new or alternative solutions to problems; develop a functional skills resume; render critical judgments with reference to scientific

concepts; distinguish between fact and speculation; evaluate objective data from theories; synthesize quantitative and qualitative information through research.

3. Science and technology: demonstrated ability to - use laboratory or clinical equipment appropriately; use a graphing calculator; utilize computer technology for web-based job search resources and job application materials; apply arithmetic, graphic analysis, and computer software to specific data sets; successfully access and complete on-line tutorials and/or quizzes.

4. Computational skills: demonstrated ability to - compute and analyze alternative valuations; apply formulas and/or demonstrate accurate calculations.

5. Information literacy: demonstrated ability to - successfully complete a specified number of learning modules; successfully pass course tests; search for, evaluate, and use adequate support of a position or facts through research; utilize web-based career planning and job search resources; extract, record and manage information; determine and/or revise queries; construct and implement effectively designed search strategies; recognize and analyze primary and secondary resources; participate in a self-assessment of competencies gained.

6. Personal and self-management skills: ability to demonstrate - time management skills by submitting all assignments by due dates; self-management skills through completion of lab assignments or clinical activities within time limits; self assessment in a reaction paper; participation in classroom discussions.

7. Interpersonal skills: ability to - work with laboratory teams to achieve the goal of an assigned experiment; work with classmates in teams to develop and present concepts related to course objectives.

8. Culture and society: ability to - discuss concepts from a diversity training video; develop a diversity-related reaction paper; complete Cross Cultural Adaptability Indicator (CCAI) pre-test and post-test (for students participating in service-learning projects); identify cultural differences and their impact on perception and values; apply sociological concepts as related to race, ethnicity, gender, and family.

RESULTS OF ASSESSMENT ACTIVITIES

As described above, the OIR has a wide range of assessment measures at the institutional level as well as the program level. Findings are used to review and evaluate institutional practices and procedures associated with the findings in both the student services and instructional areas by the vice presidents and divisional 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 department and/or division level.

At the course level, some faculty members have developed very detailed measures, with specific outcomes, while other faculty members have been more holistic in their interpretation of assessment measures. Some have demonstrated a clear understanding of the means and ends of student learning assessment; others need more guidance and best practices models to provide more useful assessments. The college will continue to address this issue to ensure the quality of assessment activities and commitment to continual improvement at the course, program, and institutional level.

ENHANCED TEACHING, LEARNING AND STRATEGIC PLANNING

Although the college as a whole is only beginning its second year of a systematic approach to course- level assessments, and integrating indirect assessments, several faculty members and deans have already discovered ways in which specific courses and programs can be enhanced to attain greater positive impact in teaching and learning. Moreover, the College has also discovered areas that should be further analyzed and assessed through a strategic planning process. **Enhancements** that have occurred, or are in the process of being reassessed, include the following:

(a) To increase student performance in **critical thinking in a CIS course**, examples of student assignments from previous semesters were demonstrated to students and additional verbal instructions were provided by the faculty member before students embarked on their problem-solving project. (b) To increase pass rates for students who show test-taking weaknesses **in science topics**, during fall 2004, additional emphasis on quizzes will allow students more practice in test-taking methodologies as well as understanding of course content. (c) During the 2001/02 academic year, to address **communication, information literacy, and technology competencies,** the Humanistic Studies Division in collaboration with the Business, Computing, and Technology Division implemented a computer skills assessment for students. The computer faculty in conjunction with Test Center staff selected and tested an evaluative instrument then used the instrument to ensure that students who enrolled in courses such as English 101 and Computer Information Systems 102 possessed the requisite basic computer skills in word processing to be successful in the course.

Strategic planning initiatives that have resulted from HCC's assessment and evaluation activities include the following:

(a) The NCLEX-RN pass rate for Harford Community College during the 2002/03 testing cycle resulted in a review and evaluation of the program as a total, including pre-requisite courses required to be admitted into the nursing program. The review and assessment included: (a) student demographics, admission GPAs, grades in science courses, and final grades in each nursing course; (b) class size; (c) test questions for currency, application and rigor; (d) course sequence and course content; (e) levels of critical thinking and problem-solving scenarios in classroom discussions; (f) levels of simulated lab experiences; (g) teaching methodologies and student learning styles; (h) the time elapsed between program completion and the NCLEX exam, and (i) options for NCLEX exam reviews by students.

Changes to the nursing program and course work were proposed, and implementation began during spring 2004. The changes to the program involve course sequencing, curriculum enhancement, grade distributions, remedial intervention, and frequency of assessments. The nursing faculty and administration will continue to assess student attainment of course objectives, grade distributions for courses, and Harford's resultant NCLEX pass rates in relationship to state and national averages.

(b) The academic progress of students enrolled in transitional (remedial and developmental) courses has been tracked since 1997. Longitudinal data as compiled in an internal study reveal that students who complete a transitional studies course and enroll in the subsequent course have a higher pass rate than native students (those students not requiring the prerequisite course). Such data are used to help determine if the learning outcomes for the prerequisite courses prepare students for success in college-level courses. Faculty evaluates the learning outcomes of all prerequisite courses annually.

(c) In a collaborative effort between student services and transitional studies, 60 students are being tracked to determine if Math 017 (intermediate algebra) is a determinant for success in subsequent course work in Math 102 (contemporary mathematics). To date, it appears that Math 017 does not determine successful completion in Math 102. An additional group will be tracked to confirm this finding. If consistent, a transition plan would then include a phase out of multiple sections of the 017 math course based on projected changes in enrollment patterns and academic advising.

SUMMARY

According to the Middle States Commission on Higher Education, "there should be written evidence of explicit learning goals that are measurable, either by quantitative or qualitative measures, at the institutional, program, and course levels." Further, the goals at different levels should interrelate, and students should be aware of the goals. MHEC has the same expectations of its higher education institutions.

Harford Community College has demonstrated that it has been actively engaged in learning outcomes assessment activities, and that the College is committed to the continuous improvement of student learning on a college-wide basis. The College began by looking at indirect measures provided by the Office of Institutional Research as it started to develop a systematic plan for course-level assessments. HCC is now in its second year of a college-wide effort to collect course-level measures and interrelate these with program and institutional level measures. 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.

Harford Community College has been involved in the development and implementation of a plan of assessment since 1999. It has adopted eight competencies related to general education and essential skills, including the five noted by Middle States. All competencies have been defined.

During the past three years, Harford has developed a focused approach for course-level assessment. Course syllabi are being revised to include learning outcomes and competencies. Direct assessment methods that have been employed to assess the five general education competencies at the course level include rubric-scored writing samples or presentations, pre-post tests, and portfolio evaluation. Indirect assessment methods at the course level include course assignments and exams scored by individual instructors without using a rubric. At the program and institutional level, grade distribution reports are used. At the institutional level, Harford conducts a student satisfaction survey as well as alumni surveys.

Pass rates for certain courses and assignments were presented. Examples of the ways in which course-level assessment has enhanced teaching and learning were given. For example, additional emphasis on quizzes were integrated into courses in Science to increase course pass rates for students showing weakness in this subject.

Howard Community College

Institutional Executive Summary of 2004 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. New 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 two new course-based assessment projects in every division each year. This year, there were 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 six strategic initiatives, eleven 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 uses two national instruments for evaluation: the Academic Profile, administered on a periodic basis to incoming freshman and graduating students to measure core competencies, and 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 and exceed national norms on both the Academic Profile and IDEA. Second, middle and senior level managers examine course success rates per term and as trend data. Third, the college collects data about student perceptions of their learning and their experience here at the college through the Yearly Evaluation of Services by Students (YESS) survey. YESS results demonstrate that almost 80% of students are satisfied or very satisfied with the overall quality of their education here at HCC. Fourth, HCC requires all academic divisions to submit two annual course-based assessment plans on a three year cycle, with an average of 42 to 45 assessment projects running in any given academic year. This year, in keeping with new Middle States requirements, HCC designed and implemented an improved systematic, institution-wide academic program review process.

Course and program review at Howard Community College demonstrate similar student satisfaction and statistically significant gains in student learning across five general education competencies: written and oral communication, scientific and quantitative reasoning, critical analysis and reasoning, technology, and information literacy.

Howard Community College Learning Outcomes Assessment Projects 2004

Competency	Institutional Review	Program Review	Course Review	Assessment Measures
Written and oral communication Ability to communicate effectively in oral and written English.	Academic Profile	Writing Intensive Program	Accounting 111 English 087 English 093 English 094 English 096 English 097 English 106 Education 111	Portfolio analysis Pre/post tests Student reflections Course success rates Course assignments, with/without rubrics IDEA survey
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	Nursing Program	Astronomy 104 Biology 101 CADD 101 Electronics 140 Math 064, 065, 067 Math 070 Math 127 Math 138 Math 150 Math 250 Physics 106, 203, 204	National exams Pre/post tests Course success rates Course assignments, with/without rubrics External evaluators IDEA survey
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	Fine Arts Program Nursing Program Study Abroad Program	Art 101 Music 101 and 102 History 121 History 122 HMDV 100 HEED 213 Italian 101 Political Sci101 Psychology 101 Psychology 202, 203 Spanish 101/102	National exams Pre/post tests Course success rates Course assignments, with and without rubrics External evaluators IDEA survey

Competency	Institutional Review	Program Review	Course Review	Assessment Measures
Information literacy Ability to recognize when information is needed and to locate, evaluate, and apply that information to solve complex, theoretical, and practical problems.	Pertinent Course Success Rate Trends	Study Abroad Program CMSY Program	English 106 Psychology 101 Psychology 202 History 122 Spanish 101 and 102 Office 293 and 297 Physics 106	Online evaluation tools Pre/post tests Course success rates Course assignments, with and without rubrics External standards IDEA survey
Technology Ability to adapt to the increasing integration of information technology in all fields of knowledge.	Pertinent Course Success Rate Trends	Office Technology Program Career Portfolio Project CMSY Program	CADD 101 CMSY 219 Math 064 Math 067 Math 070 Physics 106 Office 293 and 297	National exams Pre/post tests Course success rates Course assignments, with/without rubrics External evaluators IDEA survey

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

MHEC Staff Review of 2004 Student Learning Outcomes Assessment Report

Howard Community College assessment has evolved from classroom-based to more formal and systematic program level and institution-wide activities. All general education competencies have been defined in detail.

At the course level, assessment of these competencies uses direct measures (course-embedded assessment scored with a rubric; national exams and locally designed tests with test blueprints outlining what is being assessed; re-post tests; and portfolios). Indirect assessment measures are also used, such as course pass rates and grades on course assignments not scored with a rubric.

At the program and institutional levels, Howard has administered the ETS Academic Profile to directly assess writing, and scientific, quantitative, and critical reasoning. Indirect measures include student course evaluation surveys, student satisfaction surveys and alumni surveys.

Portfolio review assessment results, overall Academic Profile scores, survey data, and pertinent course success rates was presented and discussed. Many examples of ways in which assessment results have been used to improve teaching and learning were provided. One comes from the area of written communication. The results of scored pre/post writing samples, which showed statistically significant gains, have been used to verify course content and to focus attention on the two areas in which there was the least improvement: organization and mechanics. A future outcomes assessment project is planned to evaluate these enhancements.

Montgomery College

Institutional Executive Summary of 2004 Learning Outcomes Assessment Report

Montgomery College has become increasingly aware of the importance of assessment activities and their impact on student success and institutional planning. Student success is at the heart of the College's mission, and institutional accountability at all levels is fundamental to College philosophy and the internal spirit of the institution.

In fall of 2001, Montgomery College began to structure a formal outcomes assessment agenda. An Outcomes Assessment Steering Team was charged with formulating a college-wide plan for evaluating student learning outcomes and improving the effectiveness of institutional services and programming.

The resultant plan proposed an all-inclusive approach to outcomes assessment at Montgomery College and incorporates assessment planning and implementation at the institutional level, in the academic areas, and in general education, as well as in student services and Workforce Development and Continuing Education. The Plan calls for academic areas outcomes assessment activity on a rotating (on-going) basis, in conjunction with the AY 2002 – AY 2006 Academic Area Review (AAR) cycle, of all curriculum areas at the College.

One outcome of the college wide Outcomes Assessment Plan implementation was the development of an outcomes assessment plan designed to measure the effectiveness of the general education program. The College wide General Education Committee, partially in response to the AAC&U report *Greater Expectations: A New Vision for Learning as a Nation (2002)* and consequential to the 2004 Academic Area Review of the General Education Program is in the process of reviewing and reforming general education studies at the College.

In response, the plan that has been developed and initiated for phased implementation of learning outcomes assessment focuses on the five competencies related to general education and essential skills which are used in Middle States' accreditation process: written and oral communication, scientific and quantitative reasoning, critical analysis and reasoning, technological competency, and information literacy. Additional competencies, to be identified and defined by the faculty and which further reflect the mission of Montgomery College, are to be phased in during the plan implementation.

The General Education Outcomes Assessment Plan involves a number of stages designed to meet State requirements for general education assessment, as well as provide the College with data that is important for institutional program development. The five competencies outlined above were defined, and a survey of competency learning objectives and assessment activity was developed, piloted, and is in the process of being used to gather data on every general education course at the College. The data thus

obtained will help guide the process of assessment plan development for each general education foundation and distribution area.

Concurrently, contributory initiatives are being developed to assess general education competency skills across the curriculum. For example, the college Learning (Resource) Centers, in conjunction with the Center for Teaching and Learning (CTL), are engaged in addressing issues of information literacy and its assessment at Montgomery College. Various faculty/program areas across the three college campuses are developing learning objectives and corresponding outcomes assessment measures. One of the major challenges of on-going, effective outcomes assessment at the College is the development of mechanisms to obtain reliable results from these assessment initiatives and to use these results to enhance teaching and learning as well as academic and strategic planning at Montgomery College.

MHEC Staff Review of 2004 Student Learning Outcomes Assessment Report

Montgomery College began to structure a formal outcomes assessment agenda in 2001. The College is now in Phase II of a five- phase general education outcomes assessment plan. Phase I involved the development of definitions of the five general education competencies; a draft of "working definitions" has been completed. Phase II consists of identifying which general education courses directly support which competencies, as well as evaluating the current state of assessment in these courses. Montgomery expects that full plan implementation will be accomplished by AY 2005.

A recent faculty survey revealed that direct assessment methods of general education competencies at the course level consist of exams, assignments and projects (the use of scoring rubrics was not mentioned). According to its report, Montgomery "...is intent on formulating and implementing the process for setting learning goals and determining programmatic or course-level choice of assessment methods and rationale." Examples of student learning outcomes assessment results at the course level were not available, nor were examples of ways in which assessment results are improving learning.

Prince Georges Community College

Institutional Executive Summary of 2004 Learning Outcomes Assessment Report

Introduction

As part of the Maryland State performance accountability process, the Maryland Higher Education Commission requires colleges and universities to report on the impact that assessment of student learning outcomes has had on the educational process. The Student Learning Outcomes Assessment Reports (SLOAR) are submitted every three years. The last report was submitted in 2001. This year's report has five parts. Part I discusses how Prince George's Community College defines learning outcomes from the perspective of Middle States' standard on general education. Part II discusses direct and indirect measures of these core competencies and how these outcomes are used to make improvements to instruction.

Part I: Definition of General Education

Prince George's Community College is undergoing an extensive self-study in preparation for its accreditation visit by the Middle States Association of Colleges and Schools. As such, the college has thoroughly reviewed its core academic programs including general education. Prince George's Community College defines general education as an education that fosters the knowledge, skills, and values essential to all academic disciplines and encourages the pursuit of lifelong learning. General education outcomes are expected of all students who progress through a regular credit program regardless of the major or professional program. A student who completes the general education requirements at Prince George's Community College will be able to acquire, organize, and comprehend information from a variety of sources, evaluate its worth, and utilize it to solve problems. This goal will be accomplished when students demonstrate the following core learning outcomes:

- Communicate effectively orally and in writing in standard English
- Apply appropriate methods of mathematics to solve problems
- Comprehend and interpret reading materials
- Understand and apply the methods, principles, and concepts of the natural and social sciences and the humanities
- Understand the nature and value of the fine and performing arts
- Use computer technology for communication and information retrieval
- Recognize and appreciate cultural diversity

Part II: Assessment of Student Learning

Direct and Indirect Measures of Learning

Prince George's Community College has developed an extensive process for assessment of general education as well as the disciplines. Expectations of student achievement at the course level are clearly delineated in the revised course outcomes and listed on the syllabus of each course. These course outcomes are submitted by all departments to the Academic Outcomes Assessment Committee (AOAC) for use in the evaluation process. The college adheres to the statewide standards of cut-off scores in its use of the placement test *Accuplacer*. Similarly, programs in Health Information Technology, Nuclear Medicine Technology, Nursing, Radiography, and Respiratory Therapy, licensed or regulated by boards, follow the mandated standards in order to stay current in their certification.

Discipline based assessment

At Prince George's Community College, each academic discipline is empowered to design its own assessment protocol. The cycle for assessment is referred to as the Departmental Self-study and it runs on a three year, staggered timeline. Each year, three programs cycle into the assessment process. Although the process permits autonomy to the departments, there is a standard, set by the Academic Outcomes Assessment Committee, by which each assessment should follow. Each department must include in their department self-study: (1) trends in student enrollment over a period of years; (2) characteristics of students within the programs of study; (3) trends in student academic outcomes; (4) student and faculty satisfaction; and (5) approaches to program improvement. Each department chair is responsible for designing the protocol for the departmental self-study and, in conjunction with the Office of Planning and Institutional Research, analyses and compiles data relevant to the goals of the self-study. To date, four departments have gone through departmental self-study. These self-studies form the foundation by which substantial changes are made to curricula and pedagogy at the discipline level.

Assessment of General Education Competencies

In an effort to assess the outcomes of student on the general education competencies outlined by Middle States, Prince George's Community College has chosen to utilize the services of an outside assessment instrument, the Academic Profile sponsored by the Educational Testing Service. The Academic Profile evaluates the level of students' overall general education skills in college level reading, writing, critical thinking, and mathematics within the context of the humanities, social sciences, and natural sciences. The test helps to improve the quality of instruction and learning of academic institutions.

Summary of the Findings

- The general education skills of students are remained relatively stable over the last two assessment years. The Academic Profile total scores as well as the sub-scores of PGCC students in academic year 2003-04 were very similar to AY 2002-03.

- The total score average of the PGCC students in the academic year 2003-04 were slightly lower than the average score of the students in the norm group.

- The major opportunity for improvement for PGCC students with regard to general education outcomes is critical thinking. Prince George's Community College graduates score lower than the national comparison group of community college students on critical thinking and have a higher percentage (94% versus 84%) of students who receive scores in the non-proficient category than the national comparison group.

As a result of the findings from the Academic Profile administration, Prince George's Community College has instituted a college-wide effort to improve the critical thinking abilities of its students. For the 2005 academic year, the pedagogical focus will be towards critical thinking across the curriculum. The college administration hopes as a result of that a college-wide focus on critical thinking subsequent administrations of the Academic Profile will yield higher scores on critical thinking by graduates of college programs. Table 1 shows the percentages of students scoring within different categories of competency along the various components of the Academic Profile test for Prince George's Community College graduates compared to the national norm group.

Impact on Strategic Planning

The strategic planning structure at Prince George's Community College is a college-wide effort to look at long-range issues and action plans in order to help the college realize its vision for the future. As a part of the strategic planning process, the college has instituted a standing committee focused on Learning Centered College. The Learning Centered College Committee is responsible for setting the direction for how the educational philosophy of learning centeredness is approached at all levels of the college. The Learning Centered College Committee sets the tone for defining what learning centeredness is and how it will be practiced at the college. The committee membership personifies the broadest representation of the college's programs and operations in order to put forward deepest knowledge of what it means to have learning at the core of what we do. The Learning Centered College Committee reports to the Strategic Planning Council. The chair of the Learning Centered College Committee is a member of the Strategic Planning Council. The charge of the Learning Centered College Committee is to: 1) provide leadership on the directions and practices of learning centeredness; 2) review and prioritize action plans related to learning centeredness; and 3) recommend to the Strategic Planning Council process improvements related to the success of credit and non-credit students. The most recent activity of the committee was to assess the difficulties related to student transfer and success as well as the issues associated with student success in developmental education. These assessments resulted in two reports being issued by the Learning Centered College Committee making recommendations toward process improvements for transfer student success as well as improvements in the college's approach to developmental education.

Prince George's Community College is currently undergoing self-study in preparation for its accreditation visit by Middle States. It has defined general education and established core learning outcomes for general education students; the definition of general education is consistent with that of the Middle States standard for general education.

As a direct method of measuring general education competencies (critical thinking, mathematics and writing), for the past three years, Prince George's has administered the ETS Academic Profile to students who graduated with associate degrees. In addition, the English department uses a rubric to evaluate student writing samples. In general, other regular assessment occurs at the course level. At the program level, trends in student academic outcomes are monitored.

Results of the ETS Academic Profile testing were discussed in the report. After analyzing the findings, Prince George's has instituted a college-wide effort to improve the critical thinking abilities of its students. For the 2005 academic year, according to the report, the pedagogical focus will be on critical thinking across the curriculum.

Wor-Wic Community College

Institutional Executive Summary of 2004 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." In the attached document, Wor-Wic Community College demonstrates student learning in five competencies identified in Standard 12 of the Middle States' accreditation process: written and oral communication, scientific and quantitative reasoning, critical analysis and reasoning, technological competency, and information literacy.

For each of these competencies, Wor-Wic addresses the following questions:

- What is the definition used for this competency?
- What direct or indirect measures, methods, instruments and/or analyses are used to do assessment in this competency?
- At what level(s) does assessment for this competency occur – courses, programs and/or institutional?
- Are results available for one or more of the assessment activities related to this competency? To the degree that they are, institutions are asked to provide a summary of the results with quantitative and/or qualitative information as appropriated and an explanation of the extent to which the outcome demonstrates that students have achieved college level proficiency in the competency area.
- 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 the institution? To the extent they have, campuses are asked to describe the manner in which the assessment findings have contributed to these improvements.

At the institutional level, four college wide 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), GEA In-Class Student Survey, and the General Education documentation of general education objectives (GEO) on syllabi. The assessment tool and the data for all of the competencies are provided in the attached report.

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. The college offers general education assessment testing on seven occasions each year. Before graduation, students are required to register for one of these 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. One

question relates to the use of mathematics in the article. Another question asks the participants to apply the scientific method in creating a plausible article- related scientific survey. A third question asks the student to argue a position based upon the issue discussed in the article. Upon completion of the written portion, students are required to defend their argument in an oral presentation to a team of three faculty members.

Holistic scoring criteria for each of these objectives was determined prior to the 1992 pilot testing. The faculty teams are asked to use the criteria as each member scores 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.

General Education Assessment Results
FY '03 and FY '04

Objective	FY '03 N=35 Mean	FY '04 N=215 Mean
Oral Communication	6.09	6.13
Writing	6.29	5.80
Critical Thinking	5.94	5.70
Mathematics	4.89	5.55
Social Reasoning	5.40	5.69
Scientific Reasoning	5.29	5.18

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 test is offered seven times during the school year. The most recent time this exam was administered was in FY '03.

ACT CAAP Data FY '03

Mean Scaled Score	Writing Skills	Mathematics	Reading	Critical Thinking	Science Reasoning
College	62.8	55.1	62.1	60.8	58.5
National	62.5	56.0	60.9	60.7	59.0

GEA In-Class Student Survey - The GEA In-Class Student Survey began in 2000 and two pilots were conducted in 2001 and 2002. Data was collected in Spring, 2003, and the summary of the percentage responses is indicated below. For 2004, a random selection of 51 classes from the Spring of 2004 schedule of courses was utilized in this sample.

Form	Objectives	Number of Classes Surveyed	Number of Students Enrolled	Number of Surveys Returned
A	1 & 2	15	237	178
B	3 & 4	11	260	135
C	5 & 6	11	225	150
D	7 & 8	14	238	160
Totals	8	51	960	623

Cumulative percentages were reported for each general education objective for the academic year 2003 and 2004. Cumulative percentages were calculated based on student responses to individual items within each general education objective. Percentages for 2003 and 2004 are summarized in the report.

GEO - Beginning in the fall 2002 semester, 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, general studies, teacher education – elementary, and teacher education – secondary). The department heads identified all courses that are required or routinely used as electives within the general education academic programs. The department heads, with the course coordinators, identified on each syllabus the general education objectives satisfied, based upon a measurable instrument. The department heads then listed the courses within their programs under the general education objectives that were satisfied by each course. By completing all major courses within the program, students will have attained all of the college's eight general education objectives. Examples will be cited under each of the competencies.

I. Competency: Written and oral communication

Wor-Wic Community College has eight general education objections and the first of these objectives is broadly defined as the ability to "express ideas effectively through oral and written communication." 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 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 the highest scores of the five competencies tested.

The results of the in-class student survey also support the students' perception of progress made in the classes on this objective: 84% in FY '03 and 82% in FY '04.

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.

Though the assessment activities related to writing show college level competency in this area, faculty workshops are scheduled this year to assist faculty in expanding their knowledge about incorporating writing assignments into their courses and, then, in grading the assignments.

II. Comptency: Scientific and mathematical reasoning

To assess scientific and mathematical reasoning, 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 one college-level mathematics course, at least one social science course and at least one science course.

The results of the institutional assessments (GEA and ACT CAAP) indicate that 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.

The results of the in-class student survey also show that in comparison to the other assessed competencies, the students' perception of progress made in the classes on this objective was low: mathematic reasoning 73% in FY '03 and 62% in FY '04; scientific reasoning 82% in FY '03 and 75% in FY '04.

In FY '05, the college has 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 plans to select for next year an article with a mathematics and science emphasis and to provide more direction in the instructions for these objectives.

III. Competency: Critical Analysis and Thinking

Another one of Wor-Wic Community College's eight general education objectives states that the student will "think critically and reason logically." Students' competency in critical analysis and thinking is measured at both the course and institutional levels. At the course level, a cross section of courses has been sampled to determine if critical thinking and logical reasoning is a competency students have obtained.

At the institutional level, critical analysis and thinking is measure through the college's general education assessment (GEA) and the ACT CAAP. Above are the results of the institutional GEA and the ACT CAAP. The GEA indicates that the objective for critical analysis and thinking is the third highest area with a score over 60%. The national scores from the ACT CAAP compare favorably and support the

GEA scores. The national scores from the ACT CAAP for FY 2003 indicated that the college student scored a 60.8% and the national score was 60.7%.

The information from the assessment activities indicates that students are scoring well in the area of critical thinking compared to the national average. The college recognizes that there is 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. Continued assessment of this college objective will provide it with information on the success of our efforts.

IV. Competency: Technological Competency

Another 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. Students 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." For those students who are not required to take this course, they are provided similar skills in their programs. This training allows the students to learn and understand the proper way to complete their responsibilities using their technological competence.

In addition, all courses at Wor-Wic Community College require at least one assignment using electronic resources. Some instructors utilize classroom technology to demonstrate access and use of databases in the classroom and provide students with information concerning research through the college's Media Center. Other faculty have enhanced their face-to-face classes with a WebCT component. Students in programs, where CMP 101 is not a required course, are assessed for technological competence by the grades in each course and through the successful completion of the program.

Seventy-two percent of the students completing the Introduction to Information Systems improved their pretest score by more than 40%, and 26% improved their pretest score by more than 100%. 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 comfortable in using technology and the information it makes available.

V. Competency: Information Literacy

Information literacy is another one of the College's eight general education objectives and it states that the student will "demonstrate the appropriate use of technology to obtain and communicate information." The student is challenged to identify, find, understand, evaluate and use information in their program of study.

Students are required to complete assignments in every course that provides them with a foundation in information literacy. Students are challenged to engage in

research in topics relating to the course(s) in which they are enrolled. To support the college's commitment to information literacy, the Media Center and its staff collaborate with faculty. One-on-one training sessions and assistance for both students and faculty are provided by staff and student assistants in the Media and Resource Centers. Training for new full-time and part-time faculty is offered prior to the start of each fall and spring semester. The college believes that it is important for all faculty to be knowledgeable of the Media Center resources in order to promote their use to students.

The College's Media and Resource Centers are the focus of students engaged in information research. Students access the databases on and off campus. During the 2003-2004 academic year the following data was collected on students accessing information through the Media Center:

Media Center Online Database Statistics		
	FY 2003	**FY 2004**
Total Databases Accessed	325,719	293,880
Total Credit Students Enrolled	5,760	5,742
Databases Accessed/Student	56	51

This data provides insight into the extensive use of research when completing course assignments. In addition, the data indicates that in FY 2004 47.9% of databases accessed (128,477/268,016) were accessed from off campus. This data indicates that an increasing number of students have access to computers at home or at work.

In addition, the annual Media Center student survey indicates that 92% of students are satisfied with the quality of the Media Center's web page in providing them with ease of access into the databases. Eighty-seven percent of students surveyed indicated the quality and content of the database selection to be satisfactory.

The data indicates that the college has been successful in integrating information literacy into all courses that comprise our program offerings. The Media and Resource Centers provide ease of access to information by students and faculty. The college continues to encourage faculty and students to strengthen their information literacy skills through course assignments and access of the Media and Resource Centers.

Summary

At Wor-Wic Community College student learning in five competencies identified in Standard 12 of the Middle States' accreditation process (written and oral communication, scientific and quantitative reasoning, critical analysis and reasoning, technological competency, and information literacy) is assessed at the course, program and institutional level. From the assessment data collected and analyzed, students' areas of strengths are in their written and oral communication, critical analysis and reasoning, technological competency and information literacy. Scientific and quantitative reasoning are two areas

in which improvements are needed and strategies are planned being this fall to improve students' ability in these areas.

Wor-Wic Community College has been directly assessing student learning outcomes at the institutional level for over ten years. In order to measure whether prospective graduating students have met six of the eight general education objectives (which have all been defined in detail), the college developed the general education assessment (GEA), a test that has been administered since 1992. Before graduation, all students are required to register for one of several GEA test sessions; it is scored by faculty teams using holistic scoring criteria.

As another direct method of learning assessment at the institutional level, Wor-Wic administers ACT CAAP every five years. This has provided college-wide data to rate student performance on general education objectives, as well as testing the validity and reliability of the college GEA instrument.

Direct methods of learning assessment at the course level include course-imbedded assessments that are scored using a rubric (to assess written and oral communication, and scientific and quantitative reasoning competency). In addition, pre-post tests are administered to evaluate technology competency.

Indirect methods at the course level are primarily grades on assignments and exams for which there is no rubric. Indirect methods at the institutional level include course pass rates, as well as in-class student surveys that elicit student perception of their academic progress in attaining general education competencies.

Results of the GEA, ACT CAAP, in-class student surveys, and pre-post testing were included in the report. Ways in which assessment results led to improvement were also provided. For example, after analysis of the results of the most recent GEA, ACT CAAP and in-class student surveys, Wor-Wic has scheduled faculty training in how to incorporate mathematics and scientific reasoning across the curriculum in order to improve the students' ability to apply what they have learned.

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

Bowie State University

Institutional Executive Summary of 2004 Learning Outcomes Assessment Report

GENERAL EDUCATION MISSION: In keeping with the mission of Bowies State University to provide a liberal arts education to a diverse population, the general education program aims to encourage and enable students to strengthen their powers of communication, reasoning, computing, and judgment; to acquire a broad general knowledge of the natural sciences, social sciences, and humanities as a background for understanding problems facing them as human beings; to develop their historical consciousness and their appreciation for the fine arts; to prepare them to act as intelligent and responsible members of society; to acquire an interest in lifetime wellness; to increase their capacities for self-education; and to enable them to discover their intellectual interests and capabilities. (BSU Undergraduate Catalogue 2002-2004)

EXECUTIVE STATEMENT: Student learning outcomes assessment at Bowie State University has progressively moved toward becoming an institutionalized formal process, with a goal of becoming intrinsically embedded in the teaching and learning culture that will more definitively offer assessment results and demonstrate consistent use of those results. Although various measures of direct and indirect assessments are well in place (i.e., exams, papers, projects, presentations, surveys), the use of the results inconsistently goes beyond the classroom or course adjustments. Additionally, while the general education program clearly lists competencies that students are expected to achieve, a few competencies, such as critical reasoning, require more clearly stated definitions from which measurable objectives may be developed and framed.

The assessment data displayed in this report suggests most student learning outcomes assessments are taking place in the classroom levels. Evidence of assessment at the program and institutional levels are inconsistent and sketchy. Other than the English Proficiency Exam (EPE) and the placement test, the General Education Program does not employ any standard assessments related to the expected competencies. Further, the Program does not currently use standards of measurement such as rubrics to assess high skills areas such as writing, speaking, information literacy, and critical reasoning. However, the data does indicate that outcomes assessment is taking place at all levels and results are being used for improvements.

Bowie State University will begin a General Education Program assessment in AY 2004-05. The former interim Provost identified a General Education Review Board scheduled to convene in September and make recommendations to the Provost in September. At the minimum, the Board will review the following:

- **Articulated students outcomes**
- **Middle States' Standard 12 for general education student outcomes**
- **Courses identified to achieve stated competencies**
- **Syllabi for identified outcomes**

- **Structures for monitoring general education programs at institutions comparable to BSU**
- **On-going processes for gathering data on student outcomes.**

Present examination of student learning outcomes data indicates a need for this review, particularly in articulating measurable objectives that would more clearly and specifically define stated competencies. The Board will work closely with the Dean of Arts and Sciences and the Office of Planning, Analysis and Accountability, which coordinates and reports on outcomes assessment.

Summary of Learning Assessment in General Education Competencies

Written Communication: Bowie State University directly assesses writing competencies within courses and with three specific examinations. Although, with the exception of English courses, other programs have not developed specific courses that are writing-intensive, each academic program does require significant amounts of writing assignments and activities. A review of syllabi from the menu of general education courses indicates various measures of assessments for writing components.

Entering students are required to take the placement exam through AccuPlacer, where the results of the writing portion determine placement level in English courses. Data from the 2002 cohort indicated that 61% entered English 101 and 13% needed remediation, thus enrolling in English 100. Students entering the School of Education are required to take the standardized PRAXIS I exam. The 2002 and 2003 data indicate a 66% and 48% respective pass rate for the writing portion of this exam. Finally, all students are required to undergo and pass an English Proficiency Exam before graduating. This exam is evaluated by trained faculty using a common rubric. The present minimum passing score is "4" on a scale of 1-8. Students are encouraged to enroll in an EPE Prep course either before taking or after failing this exam. They further are expected to attend the writing lab for tutorials.

Indirectly, the University uses pertinent responses from surveys such as the Instructor Performance/Course Rating Questionnaire (IPCRQ) and the Graduating Student Exit Survey (GSES) to ascertain levels of satisfaction with the general education at BSU. The AY 2002-2003 IPCRQ responses to the item "Writing assignments improved my writing skills" suggested that 60% of the students strongly agreed or agreed that their skills had improved; however, the AY 2003-2004 responses yielded about 33% indicating the same. The 2001-2002 GSES showed that a combined 67% of the respondents indicated BSU contributed "very much" or "somewhat" to "developing the ability to write effectively," however, the 2002-2003 survey yielded a combined 28% "very much" or "somewhat" to the same item.

Oral Communication: Although the University does not require students to enroll in COMM 101, the oral communication course, many academic departments include it as a part of their programs. Therefore, student learning outcomes assessments in this area only takes place at the course level. The most codified assessment of oral

communication takes place in COMM 101, which serves as a service course, where faculty members use similar measures of learning. The department currently is reviewing a standardized assessment instrument, such as a rubric for oral presentations, in the hopes that this instrument will be used by all faculty requiring this oral presentations.

In AY 2003-2004, the Department of Communications began reviewing final grades of students enrolled in the COMM 101 course. The data showed that an average of 92.5% of the combined semester enrollment passed the course with a "C" or better.

The indirect assessments used to gauge student perceptions in written communication, were used to assess student perceptions in oral communication as well. The 62% of the 2002 graduating seniors responding to this area indicated that Bowie State University had prepared them with an "ability to speak effectively," while only 28% of the 2003 graduates who responded to this item suggested the same. The 2003-2004 IPCRQ indicated that 58% of the combined respondents felt that "oral assignments improved their speaking skills."

Scientific and Quantitative Reasoning: These general education skills are developed and assessed primarily within the Departments of Natural Sciences and Mathematics. Both areas work in tandem with the *Model Institutions for Excellence Initiative*, which ensures that a higher number of students seek and complete advanced, quality education in Science, Engineering, and Mathematics, (SEM). However, a significant number of entering students matriculating at Bowie State place into Developmental Math courses (DVMT 080 and 090); many of these students often repeat one or both of these courses. Although pre- and post-testing are done in those courses, the data was used only for individual faculty and not examined by the department as a whole. Thus, the information is not available for longitudinal examination. Nonetheless, the department is reviewing plans to revamp courses and to collect aggregately learning assessment data from developmental and 100-level courses. These departments measure competence in scientific and quantitative reasoning mostly through quizzes, examinations, course and laboratory activities, and other faculty-determined tools.

Further development of scientific and quantitative reasoning is found in some upper division courses whose primary goals are to develop research skills. Assessments are faculty-developed and lie primarily in evaluating students' abilities to use tools of statistical analyses and research.

Another assessment of quantitative skills is found in Math portion of PRAXIS I. Students are required to pass this exam before entering the Education program. The pass rates for 2002 and 2003 are 51% and 36% respectively.

Data collected from the 2002 and 2003 GSES indicated the following:

"BSU contributed to your development in scientific literacy and reasoning"
2002 = 50% of item respondents
2003 = 26% of item respondents

" BSU contributed to your development in mathematical computations and reasoning"

2002 = 51% of item respondents
2003 = 25% of item respondents

Critical Analyses and Reasoning: Although these skills are targeted in areas such as computer science and philosophy, they may be found as a skills-development objective in many courses I both the lower and upper divisions. Faculty of the Communications Department seek to guide students in developing their abilities to recognize and systematically evaluate opinions, as well as develop logical and cogent presentations. The department uses courses such as COMM 423, Broadcast Law Policy and Administration, as a barometer for measuring this skill of its majors. The 2003-2004 academic year showed an average of 70.5% of students enrolled in this course passed with a "C" or better in tools assessing this skill.

The Department of Computer Science focuses on early training of critical analysis and reasoning by guiding students through development of quantitative and logical reasoning in spreadsheet and database applications, as well as program design and implementation processes. Faculty use project grades, examinations, and classroom lab performance activities as means of directly assessing of student learning. On a program level, majors are required to take a department-developed proficiency examination based on COSC 112 and 113 (Computer Science I and II respectively). The exam was piloted in 2003-2004. The outcome of results from this test was the immediate strengthening of two critical areas in the COSC 112 and 113 courses for the upcoming 2004-2005 academic year.

Other departments such as History and Government, which includes the philosophy courses, and English rely on writing and discussion activities to develop critical reasoning. Assessment of this skill is relegated to course level. However, some discussion is just beginning regarding assessment of this skill on a programmatic or University level using a standardized method such as the ACT CAAP.

Indirect measurement of students' perceptions of their development in critical analysis and reasoning came from the GSES. The data revealed that in 2002, 61% believed BSU had help them develop in this area; in 2003 the respondents indicating the same in that item were 30%.

Technological Competency: A review of course syllabi indicated that most courses include assignments, activities and assessments related to students' development of technology skill and fluency. Many faculty are using Blackboard to encourage online interaction in the courses; most faculty seem to require at least one assignment that focuses on the use of technology in developing projects.

The IPCRQ contains items that indirectly measure student's perception of both their improved computer skills and faculty use of technology to enhance course instruction. The 2003-2004 combined responses showed that 58% of respondents agreed that "course activities had improved their technology skills." The item concerning "instructor's use of a variety of technological tools to enhance instruction" received a 62% perception of "always or often."

Seniors graduating in 2002 indicated that 54% of them believed Bowie State had developed their technology skills either "very much or somewhat," 25% of the 2003 group suggested the same.

Information Literacy: The library and academic departments work collaboratively in developing student skills in information literacy. Students develop this competency through direct instruction from library faculty, as well as academic course assignments and activities. Broad expectations are that students can identify information sources, retrieve the information and use it to produce well researched and coherent written or oral discourses. Presently, assessments of information literacy are only within the courses.

The Dean of the Library presently is working with faculty to develop a more defined information literacy program, which will include more standardized assessment of the skill.

MHEC Staff Review of 2004 Student Learning Outcomes Assessment Report

Bowie State University is in the process of institutionalizing a formal process of learning outcomes assessment. One of the main responsibilities of a General Education Review Board, convening in AY04-05, will be to "articulate measurable objectives that would more clearly and specifically define competencies." Most general education competencies have been defined, with the exception of Information Literacy, which is currently under examination. Most outcomes assessment procedures are now taking place at the course level. At the program level, direct assessment of written communication is conducted using a standardized English Proficiency Exam (EPE), administered to all General Education students. The report presented results from EPE longitudinal data, as well as examples of how the results led to improvements. For example, EPE preparation was lengthened significantly and the hiring of a "writing across the curriculum" specialist was proposed.

Results of course-based assessments of the other competencies are recorded and used at the course level. Bowie provided examples of the positive impact of assessment on teaching and learning in the areas of oral communication, critical analysis and reasoning, and information literacy.

Coppin State University

Institutional Executive Summary of 2004 Learning Outcomes Assessment Report

Coppin State University has developed an ongoing assessment process which consists of data collected in four broad categories: internal program review, external program review, formal and informal testing, and follow-up studies.

Internal academic program reviews are conducted by the Academic Program Review Committee, which was re-established in 2001. Its charge was to review all academic programs at the institution during a seven-year cycle. The Committee comprised of faculty, chairs, and administrative representatives of the University at large, established 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,[1] NCATE, NLN, COSWE, and CORE standards, and focus upon student learning outcomes as a specific area of assessment.

Sub-committees were established to work collaboratively with academic departments to assist and support the review effort. The Committee reviews the final documents, and provides constructive feedback and evaluation, suggesting strategies for strengthening various areas, and commenting on stronger points. The committee approves final submissions that address corrective actions, and forwards recommendations to the Vice President for Academic Affairs, who monitors the corrective actions. A timeline is established to benchmark activities, and programs are provided the option to seek assistance and work with the Academic Program Review Committee or Sub-committees to implement the corrective actions, or complete the tasks without committee assistance. The Academic Affairs Office awards final approval once corrective actions have been implemented, re-assessed, and deemed acceptable. This process of assessment, evaluation, and feedback, incorporates a continuous flow of information, assistance, checks and balances that promise program quality.

As a primary indicator of program success, student learning outcomes has continued to be a major focus of institutional concern, assessment and reporting. Although the Office of Institutional Research, assesses overall institutional effectiveness through a review and documentation of Student Learning Outcomes, the academic program review assessment process includes a major component that requires the investigation of student learning outcomes at the program level. A rubric which links mission to student achievement insures the effectiveness and efficiency of achieving the University's goals. Departmental goals and objectives are translated into student skill level acquisitions, which have been benchmarked and are assessed annually, and measured over time to determine trends and relevant programmatic information. Data from these evaluations

[1] Middle States Commission on Higher Education, National Council for the Accreditation of Teacher Education programs, National League for Nursing, Council on Social Work Education, and Council on Rehabilitation Education.

are used by the departments to insure that appropriate programmatic changes are made to keep the academic programs current, viable, and productive.

The internal review process is used to make decisions about steps that should be taken to strengthen viable programs or to delete programs yielding low productivity. During the past program review cycle, certain programs were enhanced while others were discontinued. This process resulted in the enhancement of programs in Early Childhood Education and Rehabilitation Counseling and resulted in the termination of the program in Philosophical Theology, and the merging of the Philosophy Department with the Department of Humanities and Media Arts as examples.

Institutional Effectiveness- Student Learning Outcomes

The University's Student Learning Outcomes Assessment process provides both formative and summative feedback relative to institutional effectiveness. Through data collection and analysis, snapshots of how well the University serves students, and the nature of their success are taken, which in turn are shared and used by faculty, students and administrators to improve programs, services and learning. Institutional goals as articulated in the Management for Results (MFR) document are derived from the University mission statement, catalogue, and current thrusts and focuses. Linked to the mission statement, these goals, along with measurable objectives and performance indicators form the major components of the Student Learning Outcomes Assessment process.

Included as an integral part of the academic program review process, Student Learning Outcomes are reviewed for mission consistency in the matrix provided to evaluate student teaching and learning. In this section of the internal review process, the University's goals related to student learning, performance, and teaching along with measurable objectives, or "domains of assessment," and specific indicators are delineated, benchmarked and reviewed for goal achievement. The "major-specific" indicators of student learning outcomes are explicit and measurable, and related to the institution's goals through departmental achievements. Objectives or domains of assessment include assessment and evaluation of knowledge, skills acquired, values/beliefs transmitted, employment rates, performance on licensure and national exams, an assessment of departmental retention and graduation rates, and progression rates. These areas of data collection and analysis form the basis of assessment of student learning outcomes. Additionally, evaluation of the effectiveness of academic and support programs are included to measure student performance along multiple and varied dimensions. Thus, student opinion and attitudinal information are gathered through various surveys and documents including faculty and course evaluations, program completer and graduation follow-up studies.

Given Coppin's charge to create autonomous, self-directed learners, the measurement of student learning is treated as an exploration of the curriculum, the learning process, and the services provided to both students and faculty. The assessment process utilized is congruent with the Institution's interest in both determining if students benefit from the

educational activities and resources, and in ascertaining what students have learned. Student performance and opinion are measured from entry to exit along a number of discrete dimensions. The process is designed to improve student learning through the enhancement of the curricula and academic programs. Viewed as a dynamic, systematic and multidimensional process to provide feedback on student performance to students, faculty and administration, the assessment process includes criterion reference testing that measures performance by an individual toward mastery of specific skill, and on other non-test measures. Assessment is embedded in each course and in every aspect of teaching, student services and instructional support programs. Continuous quality improvement is being implemented as a means of achieving desired outcomes and improved quality.

The assessment process is inclusive of the following components:

- A comprehensive survey research component, which makes use of extensive standardized instruments to collect data on the attitudes and perceptions of several reference groups,: entering freshmen, continuing students, graduating seniors, alumni, non-returning students, employers and students who applied, were accepted, and did not enroll.

- A student perception component which utilizes the Course and Faculty Evaluation forms to evaluate courses and teaching; and various standardized tools to measure the effectiveness of the General Education Program.

- A services component which evaluates the effectiveness and quality of academic, administrative and student support services from the perspectives of students, faculty and staff.

- A skill acquisition component that includes a pre-test and post-test design model to measure student learning in the general education courses, and a departmental comprehensive and/or exit exam for majors completing program requirements.

The student learning outcomes assessment process is linked to the regular institutional planning process, which requires plans made by respective administrative units be reviewed by the Curriculum Committee, Planning Council or Executive Staff and the President prior to adoption. Plans that are approved are given priority rank and are funded during the budget development process. These plans then become a part of various planning documents developed by the University.

The University's greatest asset continues to be its academic program. In order to fulfill its mission to its constituency, to the community, and to the State, Coppin State University continues to maintain an educational program that meets high standards of excellence as measured by a number of internal and external indicators of effectiveness: external evaluations by accrediting bodies, internal program reviews, employment rates of its graduates, progression rates, employer opinions, students' evaluation of teaching, retention and graduation rates, and the general education program. These indicators of

effectiveness, although not exhaustive, form the basis of the assessment and evaluation process at Coppin.

Coppin State has a comprehensive framework of outcomes assessment. The framework 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. The new assessment activities have enabled Coppin State to assess curricular changes and the quality of instruction, student services, and facilities. Programmatic and organizational changes have been data based.

Looking ahead, the University will continue to set standards very high. The implementation of People Soft/Eaglelinks will enable Coppin State to use technology in data collection, analysis, and reporting to a greater extent. The goal is always to continuously improve academic programs and student support services through timely and complete outcomes assessment. Coppin State expects that accountability to the University's internal and external constituencies will add to institutional credibility.

In addition to these requirements, Coppin State University fulfills the accreditation requirements of the Middle States Association of Colleges and Schools, as well as additional specialized accrediting agencies of professional programs. The latter includes the Maryland State Department of Education (MSDE), NCATE, NLN, Maryland Board of Nursing (MBN), CORE, and the COSWE.

The Student Learning Outcomes Assessment (SLOA) format has been included as part of the internal academic program review. The format has been reviewed by the Academic Program Review Committee, and has been modified to insure data compliance with new methodological approaches being embraced by external accrediting bodies. The internal academic program review insures use of the data for improving program performance, effectiveness, market appropriateness and efficiency.

The university wide Academic Program Review Committee was established to provide ongoing assessment data for programs not associated with accrediting bodies. This body has set a seven-year schedule to review all academic programs internally as part of its process to achieve continuous quality improvement. Historic data are used to review trends, identify areas needing improvement, and to enhance programmatic areas of greater strength. Programs are reviewed internally by the department, using the data and format provided by the Office of Institutional Research, as well as data collected by the department to review all aspects of the program. The Committee assists the departments in the internal review, and assesses the information and outcomes derived from the review. Recommendations are provided to the program with suggestions for addressing areas identified as needing attention, and assistance is provided by the Committee as needed. The Academic Affairs Office then monitors corrective action, and provides support and available resources. This process is used for all programs. It includes those programs where external accrediting bodies review, as well as those where no external accreditation entity provides reviews.

Coppin State University has developed detailed definitions for each of the five competencies related to general education and essential skills. A variety of assessment methods are employed at the course, program, and institutional levels. Some of these include portfolio assessment, pre-post exams, exit exams, the ETS Academic Profile, and surveys such as the National Survey of Student Engagement (NSSE).

Coppin's Academic Program Review Committee investigates student learning outcomes at the program level and it provides constructive feedback and evaluation to strengthen various areas. Specific examples of learning outcomes assessment results for the five competency areas were not provided in the report, nor were examples of the use of assessment results to improve teaching and learning.

Frostburg State University

Institutional Executive Summary of 2004 Learning Outcomes Assessment Report

Changing the Institutional Learning Environment

Like countless other American institutions of higher education, Frostburg State University is experiencing a fundamental shift in institutional culture as it moves from an "input-oriented" model of learning—one that primarily focuses on scope and breadth of program offerings—to an "outcome-oriented" model—one that specifically emphasizes, measures, and evaluates what students actually learn. This report reflects, therefore, the status of the University's efforts as an academic community to effect such a transition, both operationally and philosophically.

In May 2002, the University implemented the Undergraduate Education Initiative (UEI): an aggressive initiative in reform of the undergraduate curriculum. In addition to its goal of creating a more coherent approach to undergraduate education, the UEI has developed a specific focus on the establishment of learning objectives and the assessment of student achievement as integral components of the process of teaching and learning. To this end, in December, 2003, the Faculty Senate approved a series of Undergraduate Institutional Learning Goals: a roster of five specific learning goals grounded in the University's mission statement (please see Attachment One). From these goals, specific general education goals were gleaned (please see Attachment Two). Together, these sets of learning goals now serve two purposes: as a statement to the University's constituencies regarding the type of education a student should expect to receive and as a foundation for assessment initiatives in individual courses, within programs, and at the institutional level.

The University's faculty will consider, in early fall 2004, the final slate of curricular reforms generated through the UEI. Included within the UEI's recommendations will be several initiatives that provide clear avenues for assessment of essential skills and general education competencies as well as disciplinary knowledge:

- A required writing-intensive course;
- A required speaking-intensive course;
- Two interdisciplinary "FSU Colloquia" to promote critical thinking; and
- A required capstone experience in each program.

When approved by all necessary agencies, the University's new curriculum will go into effect in fall 2005.

Highlighting Assessment in Teaching and Learning

The University is fully aware of its responsibilities for accountability through demonstrating to its several publics that students are, in fact, learning through academic experiences that support the Institutional Learning Goals. In tandem with the proposals of the Undergraduate Education Initiative, multiple assessment initiatives have been enacted:

- Assessment has been identified in the University's Institutional Plan (its strategic planning document) as one of the top three goals of the University.

- Committees to address both institutional assessment and student learning assessment have been formed.

- An academic administrator has been identified to provide campus-wide leadership in assessment efforts.

- A planning timeline for development of benchmarks in essential skills has been constructed (and is synopsized in this report).

- Information about assessment activities already in place will be disseminated and highlighted in order to celebrate the University's successes and to serve as visible models as other programs develop their own strategies.

Summarizing FSU's Assessment Efforts in Essential Skills, 2001-2004

Assessment efforts in students' attainment of essential skills exist at various levels: some skills assessments are tied to curricular reform; other assessments have occurred at various levels, but the raw data has not been analyzed against a set of benchmarks; still others have not yet been fully addressed. Therefore, as the University prepares to consider curricular reform under the aegis of the UEI recommendations, one of the University's biggest challenges within that proposal is the development of definitions of college-level proficiency for each of the basic skills. To underscore the importance of establishing proficiency benchmarks, the University's strategic plan will be revised at an upcoming planning retreat (August, 2004) to include the assessment of minimum proficiencies as a specific goal of FSU's student learning assessment strategy.

Written Communication

The University requires all entering students (including transfers who have not yet completed a college-level composition course) to complete the essay portion of the New Jersey College Basic Skills Placement Test. Students' performance on this test results in their placement in either a general-access composition course or in a course for "underprepared" students. Assessment of essential writing skills beyond this placement exam has been limited to programmatic evaluations predicated on "pass/fail" rates for both types of composition courses. Therefore, a priority of the University's assessment initiative is the development of a benchmark that defines institutional expectations for basic proficiency in written communication.

In the College of Education, students must complete the PRAXIS I Writing Test prior to their being admitted to teacher candidate status. Aggregate "pass/fail" rates from this test are considered indices of students' preparedness in writing after having completed 45 college credits.

The introduction of "writing-intensive" courses (with the requirement that each student enroll in at least one writing-intensive course beyond the two currently required composition courses as a prerequisite for graduation) is part of the University's slate of curricular proposals to be approved fall 2004.

Oral Communication

A benchmark will be established that defines institutional expectations for basic proficiency in oral communication. Currently, no active assessment of oral communication is done at any level beyond those courses that apply grades to students' presentations. The College of Business, through a sampled survey of graduating students, collects students' opinions on how well they learned presentation skills as a result of their coursework in College courses.

The introduction of "speaking-intensive" courses (with the requirement that each student enroll in at least one speaking-intensive course as a prerequisite for graduation) is part of the University's slate of curricular proposals to be approved fall 2004.

Scientific and Quantitative Reasoning

The University requires all first-time students (and transfer students who have not completed a college-level mathematics course) to take a placement exam locally constructed and based on American Mathematical Association guidelines. Their performance on this exam dictates their enrollment in either a developmental course (DVMT095, for students who do not exhibit basic skills) or a college-level math course equivalent to their skills.

Students in DVMT095, a course with content derived from a content analysis of required mathematics courses, exhibit basic math proficiencies if they pass the final exam with an 80% or higher. Assessment of this course is currently completed at a programmatic level in its consideration of pass rates. Therefore, benchmarks to define proficiency in quantitative reasoning—not only for students enrolled in DVMT095, but for all students—must be developed.

Students applying for the teacher education program must also successfully pass the PRAXIS I Math Test.

Separate from expectations for minimum competencies in mathematics, in the view of the University, is the demonstration of foundational skills in scientific reasoning. A priority of the University's assessment initiative is the development of a benchmark that defines institutional expectations for basic proficiency in scientific reasoning. Aiding in this effort will be the introduction of a three-credit science course that focuses on the process of scientific thought and problem-solving. This science course is included in the roster of curricular proposals being considered this fall (2004).

Critical Analysis and Reasoning

The University has supported, for the past six years, a study of students' critical thinking skills. Random samples of freshmen and seniors have been tested each spring using the *Tasks for Critical Thinking* test. In addition, for the past three years students' dispositions toward critical thinking has been measured with two instruments: the *Need for Cognition Scale* (short form) and the *California Critical Thinking Dispositions Inventory*.

Findings of these assessments indicate that students do, in fact, grow in their ability to engage in critical thinking. Further study is needed to ascertain if such growth can be tied specifically to students' education at FSU. Studying students' growth in a longitudinal manner has been proposed as a future mode of research.

The College of Business, through a sampled survey of graduating students, collects students' opinions on how well they learned to engage in critical thinking as a result of their coursework in College courses. The University's Learning Community program also assesses each community in the collection of students' opinions regarding their level of understanding, in a critical manner, the "theme" of each community; i.e., the curricular and co-curricular connections between courses.

A priority of the University's assessment initiative is the development of a benchmark that defines institutional expectations for basic proficiency in critical thinking.

Technological Competency and Information Literacy

In response to USM directives, FSU has created its Policy on Information Technology Fluency. This policy states that students must show basic proficiencies in both technological competency and information literacy by passing the University's Test of Basic Information Technology Skills. If the students are unable to pass this test, they must complete one of three options: (1) take the test again after completing on-line tutorials; (2) successfully complete Introduction to Computer Science (COSC100) with a "C" or better; and (3) successfully complete, with a "C" or better, an FSU course that provides instruction in the basic student technology and information skills identified by the University. Pilot tests have been completed to assess both technological competency and information literacy; the result of these assessments—the Test of Basic Information Skills—will be piloted in the spring of 2005, with full implementation in fall of 2005. The on-line tutorials will be available at that time. .

Further curricular emphases regarding technological competency and information literacy will be included in the University's slate of curricular revisions to be presented in the fall of 2004.

Timeline for Implementation, 2004-2007

The SLOAR guidelines ask that institutions present a timeline for implementing assessment activities and producing data related to desired student learning outcomes. The following chronology provides a point of context for the individual timelines included in the report on each essential skill:

Date	Activity
Summer 2004	Proficiency benchmarks are included as a goal in University's strategic plan.
Fall 2004	Proposals for curricular reform are submitted to Faculty Senate for deliberation and approval. Benchmarks are proposed for measurement of three of the five essential skills as identified by MHEC (benchmarks are already established for technological competency and information literacy). All academic programs/departments create discipline-specific learning goals that connect to the Undergraduate Institutional Learning Goals. Initial concepts for an institutional assessment plan and a student learning outcomes assessment plan are presented for discussion.
Spring 2005	Programs/departments complete initial assessments of at least one of their learning goals. Results are analyzed; curricular changes are made for fall semester. Benchmarks for essential skills are approved as basis for assessment. Pilot assessment is completed and analyzed; results are used to adjust courses for the fall semester. An institutional assessment plan and a student learning outcomes assessment plan are approved. Avenues are identified to tie assessment outcomes to the University's strategic planning and resource allocation processes. Results of assessment efforts within the context of planning and resource allocation are reviewed at the annual strategic planning retreats in May and August.
Fall 2005	Inaugural report on assessment (student learning, essential skills, institutional initiatives) is circulated on campus and to various constituencies. Curricular reform, as recommended by Faculty Senate and approved by the President and State agencies as appropriate, goes into effect. Departments/programs implement changes as a result of their spring assessment; assessment cycle continues. Results of spring pilot test on essential skills are circulated to campus. Refinements are made to benchmark as a result of pilot test. Assessment of new program of general education begins, using criteria based on the Undergraduate Institutional Learning Goals. Implement fully the Test of Basic Information Technology Skills and on-line tutorials for entering class. Assessment cycle continues, using a staggered approach to address various points of each assessment benchmark.
Spring 2006	Annual report on outcomes of student learning assessment and institutional assessment is disseminated. Annual assessment of essential skills is completed; results are used to adjust courses for the fall semester. Results of assessment efforts within the context of planning and resource allocation are reviewed at the annual strategic planning retreats in May and August.
Fall 2006	Annual report on assessment (student learning, essential skills, institutional initiatives) circulated on campus and to various constituencies. Assessment cycle continues, using a staggered approach to address various points of each assessment benchmark.
Spring 2007	Program/department capstone courses (required of all students) are available to students for enrollment. Upper-level interdisciplinary seminar is available to students for enrollment. Annual assessment of essential skills is completed; results are used to adjust courses for the fall semester. Assessment cycle continues, using a staggered approach to address various points of each assessment benchmark. Results of assessment efforts within the context of planning and resource allocation are reviewed at the annual strategic planning retreats in May and August.

Frostburg State University has formulated definitions of all basic skill competencies and is also establishing proficiency benchmarks as part of its Undergraduate Education Initiative. At this point, proficiency benchmarks have been developed in two areas: technological competency and information literacy. Direct assessment methods (in the form of pre- and post- proficiency tests) in these areas have been designed and are in the pilot stage of administration, with full implementation planned for fall of 2005.

Assessment of student performance in general-access Freshman Composition is limited to tracking pass rates; analysis of which has led to the consideration of providing additional tutoring and more "linked sections" of composition and an academic subject. In the area of critical thinking and reasoning, while benchmarks have yet to be established, the Frostburg Psychology department has been conducting research since 1998, using the following instruments: Tasks in Critical Thinking, the Need for Cognition Scale, the California Thinking Dispositions Inventory, and the CAAP-CT test. Results have shown that Frostburg seniors do, indeed, have better critical thinking skills than freshmen. Faculty is designing further research to evaluate which student programs and activities provide the most experience in critical thinking.

In other basic competency areas, indirect measures such as pass rates of students enrolled in core courses were reported. Because specific benchmarks have not yet been established, Frostburg has yet to use assessment results to inform planning. According to the detailed timeline provided, the full implementation of the University assessment system will be in place by Spring 2007.

Salisbury University

Institutional Executive Summary of 2004 Learning Outcomes Assessment Report

The General Education core at Salisbury University is transitioning from a menu-driven course-based model to a competency-based program of general learning. This process was initiated in 1997 when a General Education Task Force was created 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. However, after the ratification of the *Student Learning Goals* in August 2000, little additional effort was devoted into transforming these principles, skills, competencies, and dispositions into a comprehensive, competency-based, assessment-driven general education curriculum.

In May 2001, the Salisbury University Academic Assessment Committee (UAAC) was formed and charged (Appendix B) with, 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 UAAC focused its initial assessment efforts toward developing a model for program-level assessment of student learning across all academic units.

At its foundation, the UAAC developed a plan (Appendix C) for outcomes assessment that was structured to address the new Middle States Accreditation standards. These standards focused assessment as an "institutional effectiveness" model of Continuous Quality Improvement. This required a multi-year, comprehensive, staged assessment implementation plan that outlined program-level student learning assessments across all academic units by spring 2006—a date that corresponds with the University's next decennial review with Middles States. Since the plan is comprehensive, it also prescribes a timetable for the assessment of general education competencies. With nearly two years remaining in this implementation plan, Salisbury University remains on schedule with program-level assessments but has drifted behind in its implementation plan for general education assessment.

At this writing, the general education core remains course- not competency-based. As a result, there is little substantive evidence that demonstrates standardized minimum student learning in the core general education competencies of written and oral communication, scientific and quantitative reasoning, critical analysis and reasoning, technological competency, and information literacy. However, although the course-based general education program has limitations, program-level assessment has strong linkages to general education that will eventually yield substantive evidence of student learning in the breadth of the general education core. The operable word in this assertion is "eventually" since all academic units are operating according to a prescribed implementation plan that has always targeted the first results of assessments beginning throughout the 2004-2005 academic year. As a result, the majority of the University's

individual academic programs have embedded these five core competencies as well as other general education skills and dispositions alongside discipline-specific student learning outcomes. Because each discipline has different standards of performance in each of these competencies, there is and will be significant variability in skills definitions, acquisition, and demonstration. Although the University Academic Assessment Committee will undertake the assessment of general education competencies beginning in Fall 2004, the discussion has yet to ascertain whether the assessment will be embedded throughout the disciplines and focused at the program level or whether the assessment program will be focused at the course level and institutionally administered. Either methodology provides viable options, provided the general education program truly shifts from the current menu-driven, course, grade-based model to a competency-based, assessment-driven model.

In 2002, a Special Assistant to the Provost for General Education was appointed to engage the campus in the debate, decision, methodology, and implementation of the Student Learning Goals in practice, not merely in philosophy. It is with this individual and her faculty working group that the decision to assess the general education core at the program or institutional level ultimately resides. A meeting during the Spring 2004 semester between the General Education Working Group and the SU faculty revealed a large gap in opinion regarding the sufficiency of the course, grade-based model versus the competency-based, assessment-driven model.

Concurrent with those activities, the Salisbury University Middle States Steering Committee began in Spring 2004 to develop a Self-Study Design in preparation for the SU Self-Study and visit in 2006. Critical to the work of this committee was a review of the 14 Middle States Accreditation Standards, including Standard 12 that highlights the criteria of performance with regards to general education. The steering committee identified 11 questions (Appendix D) to help frame whether or not the University was adequately meeting the standard. Because the revision of general education from a course to a competency-based curriculum had advanced minimally, the steering committee shaped a series of questions that will require a working subcommittee to examine *and* act upon general education and assessment in order to address adequately the criteria of the standard. Included among these charging questions are "what are the minimum standards that SU students must achieve and/or reveal in order to demonstrate the skills, knowledge, and dispositions defined in the SU Student Learning Goals" and "provide evidence that students who graduate from SU are proficient in a) oral and written communication; b) scientific and quantitative reasoning; c) technological uses within the major discipline; d) information literacy; and 5) critical analysis and reasoning."

Although the Middle States standards for General Education competencies are new, the expectations are not. The faculty of Salisbury University believes that the general education program of the institution has provided our graduates with the foundational skills and competencies needed to succeed in all endeavors throughout their lifetimes. However, the evidence for that assertion has seldom been more than anecdotal or grade-based, both of which are severely limited in their validity. Recognizing these limitations,

the faculty had the foresight and the leadership to begin moving the general education program from a course to a competency-based core that is assessment driven. However, the final stages of that process, i.e. implementing an ongoing assessment plan and ensuring minimum standards are established for all students, has lingered. As a result, the University and several targeted committees have launched plans, timetables, and investigations to complete a process begun nearly a decade ago. The Student Learning Outcomes Assessment Report describes the progress made and the plans to complete the full implementation of a competency-based general education core and the assessment of the same.

MHEC Staff Review of 2004 Student Learning Outcomes Assessment Report

Salisbury University established an Academic Assessment Committee in 2001 and remains at the initial stages of developing a student learning outcomes approach to general education. General "learning goals" were established in 2000, but minimum proficiency standards for the five general education competencies have yet to be developed. Assessment methods are limited to academic grades earned on course assignments and tests, as well alumni surveys. The report did not provide examples of results nor examples of the way results are used in academic and strategic planning.

According to its report, Salisbury plans to implement an assessment-based general education program by 2006, to coincide with the University's next Middle States review.

Towson University

Institutional Executive Summary of 2004 Learning Outcomes Assessment Report

As requested by the Maryland Higher Education Commission, this progress report provides information on Towson University's assessment of the competencies identified in Middle States' *Characteristics of Excellence* Standard 12: written and oral communication, scientific and quantitative reasoning, critical analysis and reasoning, technological competency, and information literacy. As discussed on page 6, this report focuses on our assessment of the development of these competencies within our General Education curriculum and thus describes only a small fraction of efforts across Towson University to assess student learning goals and to use the results of those assessments to improve student learning.

Written Communication (Pages 6-9)
Towson evaluates competence in written communication in three General Education requirements by having faculty evaluate samples of student papers using common rubrics.

In Writing for a Liberal Education classes (Towson's required freshman-level writing composition courses), 95% of evaluated papers have scored a 3 or above in terms of evidence of controlling purpose, 92% have scored a 3 or above in terms of engagement with the text, 89% have scored a 3 or above in terms of style and command of sentence-level conventions; and 75% have scored a 3 or above in terms of organization and development. Altogether, 89% of evaluated papers have scored a total of 15 or above on the five criteria used to evaluate the papers.

In Using Information Effectively courses (Towson's required information literacy courses), 92% of evaluated papers have been judged at least "marginally adequate" in terms of explaining information and ideas clearly in writing, and 90% have been judged at least "marginally adequate" in terms of organizing information in writing to present a sound central idea supported by relevant material in a logical order.

All evaluated papers in Advanced Writing courses (Towson's required upper-level writing courses) have been judged at least "minimally adequate" in terms of clarity/coherence; 96% have been judged at least "minimally adequate" in terms of overall arrangement, logic, diction, style, and basic English; 94% at least "minimally adequate" in terms of documentation; and 92% at least "minimally adequate" in terms of main idea and supporting evidence.

The Writing for a Liberal Education faculty have concluded that the results of this assessment demonstrate college-level proficiency in maintaining an overall focus, using a variety of material to develop and explain that focus, style, and command of sentence-level conventions. Over the coming year, the department syllabus will be revised to

increase emphasis on writing organization, and a more extensive assessment will be conducted and used to redesign the Writing for a Liberal Education curriculum.

The Using Information Effective and Advanced Writing faculty have concluded that the results of these assessments demonstrate college-level proficiency in written communication skills. The faculty, nonetheless, continue to discuss ways to optimize students' learning experiences. They will continue their assessments and will monitor future results to ensure that they remain at satisfactory levels.

Oral Communication (Pages 9-10)
Towson evaluates oral communication competency in the Using Information Effectively requirement of the General Education requirement by having faculty evaluate students' in-class presentations using a common rubric. All evaluated presentations have been judged at least "marginally adequate" in terms of explaining information and ideas clearly through oral communication and organizing information orally to present a sound central idea supported by relevant material in a logical order.

The faculty have concluded that the results of this assessment demonstrate college-level proficiency in oral communication skills. The faculty, nonetheless, continue to discuss ways to optimize students' learning experiences. They will continue their assessments and will monitor future results to ensure that they remain at satisfactory levels.

Scientific Reasoning (Pages 10-13)
Each of the four departments offering Scientific Inquiry courses—Biology, Chemistry, Geography, and Physics, Astronomy, & Geosciences—has adopted its own strategies to evaluate scientific reasoning competence. Biology faculty use multiple choice test questions and short-answer problems; Chemistry faculty use multiple-choice test questions; Geography faculty use a variety of test questions; and Physics faculty use laboratory assignments and multiple-choice test questions.

In Biology, all students have scored at least a 2 on a four-point scale used to evaluate problems. Students average 30% correct on multiple-choice questions administered at the beginning of the course and 73% correct on the same questions at the end of the course, a sizable and statistically significant improvement. While the faculty have concluded that the results of their assessment demonstrate college-level proficiency, they would nonetheless like to improve students' scores and to this end are developing more active learning strategies for students, especially to help them develop their quantitative reasoning skills.

In Chemistry, 92% of students have chosen either the complete and correct answer or the "next best" answer to critical thinking test questions, and 78% have chosen either the complete and correct answer or the "next best" answer to problem-solving test questions. The faculty have concluded that the results of their assessment demonstrate college-level proficiency in critical thinking. To improve students' problem-solving skills, the faculty will place more emphasis on these skills in their classes.

In Geography, students have answered correctly an average of 80% of those test questions evaluating skill in critically evaluating geographical and environmental information, 67% of those test questions evaluating skill in explaining the spatial distribution of environmental phenomena, and 82% of those test questions evaluating skill in explaining the physical processes shaping landscapes. The faculty have concluded that the results of their assessment demonstrate college-level proficiency in critically evaluating geographical and environmental information and explaining the physical processes shaping landscapes. To improve students' skills in explaining the spatial distribution of environmental phenomena, some faculty have modified their syllabi, teaching methods, and assessment tools. The faculty are developing new assessment tools to evaluate judgment and reasoning skills, including skill in interpreting scientific data displayed in graphical formats such as maps and charts and skill in applying physical geography concepts to understanding contemporary problems and issues.

In Physics, all students have earned at least a minimum score of six out of ten possible points on laboratory assignments, and students have averaged 65% correct on multiple-choice test questions. While the faculty have concluded that the results of their assessment of scientific reasoning skills demonstrate college-level proficiency, they continue to discuss ways to optimize students' learning experiences.

Faculty teaching all Scientific Inquiry courses have drafted revised scientific reasoning goals (see page 13), and faculty representatives will meet this Fall to refine these revised learning goals and modify assessment strategies as appropriate.

Quantitative Reasoning (Pages 13-14)
Towson evaluates quantitative reasoning competence in the College Mathematics requirement through four final examination problems that assess these skills. In assessments to date, 65% of students have been judged to have college-level proficiency in quantitative reasoning; 43% have been judged highly proficient. To enhance student learning, Mathematics faculty are now using the method of problem solving introduced by mathematician George Polya and are making their courses more student-oriented by using cooperative groups, individual and group projects, and appropriate technology. The faculty are reviewing the problems now used and may develop new problems that are more closely aligned with the University's quantitative reasoning goals. The faculty are also exploring alternative assessment strategies such as journals, projects, and exit passes.

Information Literacy (Pages 14-15)
Towson evaluates competence in information literacy in the Using Information Effectively requirement by having faculty evaluate student papers, projects, and presentations using a common rubric. The faculty have found 95% of student works at least "marginally adequate" in terms of identification of potential sources of information related to a given field of study; 92% at least "marginally adequate" in terms of finding information that is appropriate for and relevant to a given field of study; 91% at least "marginally adequate" in terms of using information to answer questions and/or solve problems; and 98% at least "marginally adequate" in terms of using the work of others

accurately and ethically.

While the faculty have concluded that the results of this assessment demonstrate college-level proficiency in information literacy, they continue to discuss ways to optimize students' learning experiences. The faculty will continue these assessments and will monitor future results to ensure that they remain at satisfactory levels.

Critical Analysis and Reasoning (Pages 15-19)
Critical analysis and reasoning are at the foundation of every General Education competency at Towson University, indeed the very essence of competence in written communication, oral communication, quantitative and scientific reasoning, and information literacy skills. Towson's assessments of written communication, oral communication, quantitative reasoning, scientific reasoning, and information literacy skills thus assess key critical analysis and reasoning skills as well. Towson also includes creative thinking as an element of critical analysis and reasoning skills. Faculty evaluate competence in creative thinking by asking students completing the Creativity and Creative Thinking requirement of the General Education curriculum to write reflectively on what they have learned in the course; the results are analyzed using content analysis, a qualitative assessment method.

Faculty teaching General Education courses in Writing for a Liberal Education, Advanced Writing, Using Information Effectively, Scientific Inquiry, College Mathematics, and Creativity and Creative Thinking have concluded that the results of their assessments demonstrate college-level proficiency in a variety of critical analysis and reasoning skills. They have used the results of these assessments in a number of ways. Biology faculty are developing more active learning strategies; Chemistry faculty are increasing their emphasis on problem solving; Geography faculty have modified their syllabi, teaching methods, and assessment tools; and Mathematics faculty now use Polya's method of problem solving and are making their courses more student-oriented.

All faculty continue to discuss ways to optimize students' learning experiences. They will continue these assessments and will monitor future results to ensure that they remain at satisfactory levels.

Technological Competency (Pages 19-20)
Towson evaluates technological competence in the Using Information Effectively requirement by having faculty evaluate student papers, projects, and presentations using a common rubric. Among evaluated papers, projects, and presentations, 92% have been judged at least "marginally adequate" in terms of using technology to analyze and summarize information and/or communicate it with others, and 81% have been judged at least "adequate" in terms of these skills.

The faculty have concluded that the results of this assessment demonstrate college-level proficiency in technological competency. They continue to discuss ways to optimize students' learning experiences. The faculty will continue these assessments and will monitor future results to ensure that they remain at satisfactory levels.

Conclusion
Towson University faculty have developed thoughtful and appropriate definitions of each of the General Education competencies identified in Middle States' *Characteristics of Excellence* Standard 12: written and oral communication, scientific and quantitative reasoning, critical analysis and reasoning, technological competency, and information literacy. They have developed viable, useful strategies to assess each of these competencies, and the results document that the great majority of students are demonstrating at least minimal proficiency in most competencies; indeed, many students are demonstrating exemplary achievement. In the rare cases in which disappointing numbers of students are not demonstrating minimal proficiency, the faculty are making substantive changes to their curricula and pedagogies. Towson faculty are committed to continuing and refining their assessment strategies and to continuing to use the results to improve student learning further.

MHEC Staff Review of 2004 Student Learning Outcomes Assessment Report

Towson University has a very active assessment program in place. All undergraduate degree programs have designed and implemented assessment plans and most have already used assessment results to improve student learning.

All general education competencies have been defined in great detail. Direct assessment methods are in place for all areas. Towson assesses competence in writing and oral communication by having faculty evaluate samples of student papers (or presentations) using a common rubric. Scientific and quantitative reasoning, information literacy and technological competency are assessed using pre-post tests and standardized exam problems scored using a common rubric. Towson faculty considers that critical analysis and reasoning is at the foundation of every general education competency; assessment in this competency is specifically addressed within each of the other general education assessment programs.

Summary results for assessment methods were presented for all general education areas, as was discussion of the ways in which results were used to improve teaching and learning. For example, results from writing competency assessments have led the freshman composition program to revise the departmental syllabus to increase attention to writing organization. Results from scientific reasoning competency assessments have resulted in the Chemistry faculty deciding to place more emphasis on problem-solving skills in their classes.

University of Baltimore

Institutional Executive Summary of 2004 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 2004 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.

- During AY 2002-2003 a three-pronged assessment of the upper-division core curriculum revealed that the writing program, while meeting certain learning outcomes goals, was in need of revision. The 2004-2007 University of Baltimore Strategic Plan calls for introduction of a measurable writing-across-the-curriculum program.

- Critical analysis and reasoning are primarily developed through the upper-division core course, *Ethical Issues in Business and Society*. The 2002-2003 assessment revealed that this course meets learning goals related to critical analysis and reasoning.

- The 2002-2003 survey revealed some weaknesses in the current core curriculum. The 2004-2007 University of Baltimore Strategic Plan says that it will review, revise and implement an enriched core curriculum.

- The University of Baltimore has, for the past three years, utilized indirect measurement techniques in its evaluation of learning outcomes. Plans are underway to add direct measurement of learning outcomes to the process.

- Oral communication and scientific and quantitative reasoning competencies are not measured at University of Baltimore.

- 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 the 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. Information literacy has not been formally assessed for these efforts, but when the upper-division core curriculum is revised information literacy skills will be incorporated and learning outcomes will be measured. The library will participate in both development and assessment.

University of Baltimore, whose undergraduate enrollments are chiefly at the upper-division level, does not examine the goals of lower-division general education, except when they are also goals of its upper-division required core curriculum or of a specific program. The only specific general education competencies defined and assessed at UB are written communication and, for Business students, critical analysis and reasoning. Current student learning assessment methods for written and oral communication include course grades in a required writing course (results were provided) and an alumni survey. The 2004-2007 UB Strategic Plan calls for introduction of a measurable writing-across-the-curriculum program.

Scientific and quantitative reasoning and oral communication general education competencies are not assessed at UB. Technological competency is defined, but it is expected that most students who transfer to UB have met it (if not, the course, Introduction to Microcomputers, is required with the course grade serving as the assessment). Assessment of information literacy learning outcomes has not been separated from that of the overall goals of research courses, but according to the report, information literacy will be further developed as an institutional learning outcome. The report did not provide a timeframe for this plan.

University of Maryland Baltimore County

Institutional Executive Summary of 2004 Learning Outcomes Assessment Report

Background

UMBC engages in extensive assessment activities designed to evaluate and improve student learning and to determine accountability for the quality of student learning. 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.

Outcomes assessment is one component of academic program reviews and an important focus of institutional performance accountability reports submitted annually to the Maryland Higher Education Commission. Both reports focus on outcome measures such as retention rates, graduation rates, alumni satisfaction, and post-graduate education and employment rates. There are also periodic student surveys that measure campus climate, student satisfaction, and alumni satisfaction. Specific programs such as Education, Emergency Health Services, Engineering, Psychology, and Social Work are reviewed periodically by accrediting bodies that emphasize student learning outcomes, and data from licensure examinations document our students' high level of achievement. UMBC has also participated in the National Survey of Student Engagement (NSSE), which measures student engagement in many important activities that relate to student learning and personal development. On a campus-wide basis, students evaluate classroom teaching for their courses every semester, and these evaluations are a mandated component of faculty promotion, tenure, merit, and post-tenure reviews. Collectively, these and other assessment activities continually inform the campus community of UMBC's current performance and standing among its institutional peers and provide a sound basis for re-examining of goals, priorities, and action.

At present, UMBC's assessments of student learning outcomes are based on indirect measures obtained from course grades and student surveys. Progress toward direct measurement of outcomes has been made in many departments, especially in programs where external accrediting agencies have mandated outcomes assessment.

The university is in the process of coordinating its assessment efforts and has established a Campus Assessment Coordinating Committee, with a long-term goal of having a Director of Assessment. We have also undertaken a review of our general education requirements, and an ad hoc committee is in the process of defining competencies that courses must address in order to qualify for general education credit. These efforts will be augmented this year as we undertake our self-study in preparation for re-accreditation by the Middles States Association. These conceptual frameworks are not yet in place, and it is likely that the definitions contained in the present report will undergo some

revision in this process. It is also clear that the assessments reported here will inform further assessment planning.

Competency: Written Communication

Definition and Assessment. The initial definition that we are using for written communication is "Writing clearly and effectively." The elements of clear and effective writing have not been formally articulated at an institutional level, but the Standards for a C Paper that were developed collaboratively among the state's two- and four-year institutions are being used in English 100, the composition course that is required of all students. Other key writing courses are English 391, "Advanced Exposition and Argumentation" (which is as a general elective and a major requirement), and English 393, "Technical Writing" (also a general elective and a requirement for several majors). Other evidence of student learning comes from the 2001 NSSE and from student responses to the Alumni Survey (Class of 2001).[2]

Results. Grade distributions for fall 2003 and spring 2004 were examined for three writing courses, one of which is required for all students. Although academic credit is earned for a grade of D or better, for the purpose of outcomes assessment, a "pass" is considered a grade of C or better. Results for these three writing courses: were as flows: English 100: 93.3% of 1265 passed; English 391: 93.0% of 144 passed; and English 393: 98.5% of 617 passed.

On the NSSE, for the item "Writing clearly and effectively," Freshmen and Seniors gave mean ratings of 2.48 and 2.67 respectively (max. 4.00). These results are comparable to those of our peer institutions but below the NSSE national averages (2.86 and 3.05, respectively).

On the Alumni Survey, 57% reported that UMBC had contributed "Very much" or Quite a bit" to their "Writing Clearly and Effectively." The average response on the 4-point rating scale was 2.69, which is consistent with the responses of Seniors in on the NSSE (see above, 2.67).

Use of Results. The high pass rates for English 100, the basic composition course required for graduation, and for English 391 and 393, provide evidence that UMBC's students are mastering the essentials of written communication. However, reports from students on the NSSE and Alumni surveys, as well as informal feedback from faculty, strongly suggest that our students need additional writing experience. This was a conclusion of the 2000 Task Force on UMBC as an Honors University, which proposed that an additional writing course be required of all students, as well as a writing course within the student's discipline. Economic factors have prevented development of a full Writing in the Disciplines (WID) program at UMBC. The Provost has awarded modest sums of money to departments for projects directed at increasing or improving writing in the disciplines, and a proposal to require an additional writing course will be considered by the Faculty Senate in 2004-2005.

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[2] Results are not yet available from the most recent NSSE and Alumni surveys.

Competency: Oral Communication

Definition and Assessment. The initial definition that we are using for oral communication is "Speaking clearly and effectively." The elements of clear and effective speaking have not been formally articulated at an institutional level. Although oral presentation or argumentation play an important role in many of UMBC's courses, we have not identified specific courses that can serve as indicators of this competency. Data from the NSSE and the Alumni Survey provide indirect evidence of learning outcomes.

Results. On the NSSE, for the item "Speaking clearly and effectively," freshmen and seniors gave mean ratings of 2.18 and 2.56 respectively (max. 4.00). These results are comparable those of our peer institutions but below the NSSE national averages (2.60 and 2.95, respectively). On the Alumni Survey, 51% reported that UMBC had contributed "Very much" or Quite a bit" to their "Speaking clearly and effectively." The average response on the 4-point rating scale was 2.52, which is consistent with the responses of seniors in 2001 on the NSSE (see above, 2.56).

Use of Results. Oral communication as a competency is currently addressed in special programs such as the Meyerhoff Scholarship Program and the Humanities Scholars program. The Task Force on UMBC as an Honors University recommended a competency-based approach to undergraduate education at UMBC and specifically included speaking skills as one of the essential competencies to be fulfilled. The university is committed to developing all students' competency in oral communication and will formally address this aspect of general education when funding permits.

Competency: Scientific and Quantitative Reasoning

Definition and Assessment. The initial definition that we are using for scientific and quantitative reasoning is "Analyzing quantitative problems; solving complex real-world problems." To assess outcomes for this competency we are using course grades in (a) lower-division general education courses in the sciences, technology, engineering and mathematics and (b) in selected upper-division courses. In addition, we include student reports from the NSSE and Alumni Survey items "Analyzing quantitative problems."

Results. Grade distributions for fall 2003 and spring 2004 were examined for courses meeting the above criteria. A "pass" is considered a grade of C or better.

Course	Students AY 2004	Pass Rate
BIOL100	767	79.2%
BIOL100L	464	89.4%
BIOL107	59	90.9%
BIOL109	133	89.1%
BIOL123	48	86.0%
CHEM100	52	85.4%
CHEM101	980	71.5%
CHEM102	562	70.7%
CHEM102L	429	94.5%
CHEM123	93	74.7%
CHEM124	129	89.6%
ECON320	127	95.0%
GEOG386	48	100.0%
MATH100	201	78.2%
MATH106	681	74.8%
MATH115	174	79.3%
MATH131	48	91.3%
MATH132	37	80.6%

Course	Students AY 2004	Pass Rate
MATH150	812	73.0%
MATH151	1194	72.2%
MATH152	632	74.7%
MATH155	143	71.4%
PHYS111	365	83.6%
PHYS112	217	77.8%
PHYS121	679	53.2%
POLI300	45	73.7%
POLI400	75	97.3%
SCI 100	288	96.4%
SOCY300	155	91.3%
SOCY301	61	93.0%
SOWK470	32	90.0%
STAT121	356	95.0%
STAT350	261	87.8%
STAT351	498	87.2%
STAT355	387	82.8%

On the 2001 NSSE, for the item "Analyzing quantitative problems," freshmen and seniors gave mean ratings of 2.60 and 2.74, respectively (max. 4.00). These results are lower than those of our peer institutions (2.81 and 3.01, respectively) but comparable to the NSSE national averages. On the Alumni Survey of the Class of 2001, 59% reported that UMBC had contributed "Very much or Quite a bit" to their "Analyzing quantitative problems." The average response on the 4-point rating scale was 2.70.

Use of Results. Grade reports are reviewed at the departmental level on a regular basis and curricular revisions and pedagogical enhancements are implemented as appropriate. An excellent example of this approach is an NSF-supported research project on implementation of active-learning techniques in BIOL 100.

Competency: Critical Analysis and Reasoning

Definition and Assessment. Our initial definition of this competency is "Thinking critically and analytically." The elements of this competency have not been defined formally at an institutional level, but are defined within each academic discipline. As evidence of learning, we are using course grades in selected discipline-based courses that emphasize critical thinking or scholarly methods in the discipline. These data are augmented with student reports from the NSSE; 2001 and the *Alumni Survey*.

Results. Grade distributions for fall 2003 and spring 2004 were examined for courses meeting the above criteria. A "pass" is considered a grade of C or better.

Course	Students AY 2004	Pass Rate
AFST201	17	92.9%
AMST290	56	96.4%
AMST391	71	97.1%
AMST490	37	100.0%
ANTH303	14	92.9%
ART 424	29	100.0%
EDUC310	94	96.7%
EDUC311	81	98.6%
EDUC312	85	98.8%
EDUC351	15	92.9%

Course	Students AY 2004	Pass Rate
ENES101	239	88.3%
ENGL301	165	82.2%
ENGL391	144	93.0%
HIST201	114	95.3%
MLL 301	49	95.3%
PHIL 146	96	76.0%
PHIL210	35	97.0%
PHIL346	70	98.4%
RLST200	7	100.0%
THTR321	21	100.0%

On the NSSE item "Thinking critically and analytically," freshmen and seniors gave mean ratings of 3.00 and 3.20, respectively (max. 4.00). These results are comparable to those of our peer institutions and to the NSSE national averages. On the *Alumni Survey* of the Class of 2001, 72% reported that UMBC had contributed "Very much or Quite a bit" to their "Thinking critically and analytically." The average response on the 4-point rating scale was 2.98.

Use of Results. Grade reports are reviewed at the departmental level on a regular basis and curricular revisions and pedagogical enhancements are implemented as appropriate.

Competency: Technological Competency

Definition and Assessment. The *UMBC Policy on Technology Fluency* states that "UMBC will assess the degree to which its students achieve technology fluency by the monitoring and reporting of its assured access program; regular assessment of its required courses in composition and those within the major (especially at the senior level) that contain a technology component; and regular surveying its alumni." For this report, assessment is based on student reports from the NSSE several items on the *Alumni Survey*.

Results. On the 2001 NSSE, for the item "Using computing and information technology," freshmen and seniors gave mean ratings of 2.74 and 2.95, respectively (max. 4.00). These results are lower than those of our peer institutions (2.98 and 3.18, respectively), but comparable to the NSSE national averages.

On the *Alumni Survey*, items were incorporated to assess several aspects of technology fluency. For these items, the percentage who reported that UMBC had contributed "Very much or Quite a bit," to their knowledge or skills, and the average rating on a 4-point scale are shown in the table below:

Skill	%	Average response
Set-up and maintenance of a personal computer	25	1.92
Using basic operating systems features	41	2.32
Using a word processor to create a document	41	2.31
Using a graphics/artwork package for illustration	37	2.19
Connecting to a network	28	1.95
Using a computer to communicate	51	2.59
Using a spreadsheet	34	2.09
Using a database system	39	2.20

Use of Results. UMBC recognizes that the use of technology is instrumental in enabling learning, advancing research, facilitating business functions, and enhancing the quality of citizens' lives. UMBC, therefore, has developed, and regularly updates, a *Strategic Plan for Information Technology* (April, 2000) to ensure that technology enhances the quality of the campus' teaching and learning, research, and administrative services. This plan responds to the Regents' mandate that graduates from USM institutions be technologically fluent. The assessment items contained in the *Alumni Survey* of the Class of 2001 were developed as a collaborative effort of the Faculty Senate's Computer Policy Committee, the campus' Information Technology Steering Committee, and the Office of Information Technology.

In fall 2001, UMBC implemented its *Assured Access to Computing Initiative*, which requires that students have ready access to a computer and the Internet. Assured access to computing for students has enabled faculty to make greater use of technology in their teaching, whether by using e-mail to communicate with students, using internet-based course management systems (e.g., BlackBoard), or requiring that assignments be prepared electronically. The *Alumni Survey* of the Class of 2003 may provide the first evidence of an impact of Assured Access on technological competency.

Competency: Information Literacy

Definition and Assessment. Information literacy is defined as "The ability to access, evaluate, and use information from a variety of sources." The *UMBC Information Literacy Task Force* has developed a 51-item survey using information literacy standards developed by the Association of College and Research Libraries. Results are presented for 8 key items that address the student's "comfort level" with information literacy skills, together with data for one item on the *Alumni Survey*.

Skill	%	Average response
Formulating questions based on information needs	80.5	4.04
Identifying potential sources of information	86.8	4.12
Developing successful search strategies	77.3	3.96
Accessing sources of information, including computer-based technologies	82.7	4.17
Evaluating information	77.6	3.98
Organizing information for practical application	75.2	3.95
Integrating new information into an existing body of knowledge	71.1	3.86
Using information in critical thinking and problem solving	73.4	3.91

On the *Alumni Survey*, the percentage of respondents who reported that UMBC had contributed "Very much or Quite a bit," to "Using the Internet to find information" was 55%; the average rating on a 4-point scale was 2.66.

Use of Results. These results provide baseline data for the *Information Literacy Project.*

MHEC Staff Review of 2004 Student Learning Outcomes Assessment Report

University of Maryland Baltimore County has established a committee to coordinate assessment efforts and is in the process of defining competencies that courses must address in order to qualify for general education credit. These activities are undertaken in conjunction with self-study activities initiated in preparation for UMBC's upcoming Middle States visit.

In terms of the five general education competencies, institution-wide "initial definitions" have been articulated for writing and oral communication, scientific and quantitative reasoning, and information literacy, although these working definitions are expected to undergo revision. Critical analysis and reasoning is defined within each academic discipline, though examples were not given. Technological competency is not defined, although the University does have a policy promoting technological fluency.

At present, UMBC's assessments of student learning outcomes are based on indirect measures obtained from general education course grades, and institutional administration of the NSSE and alumni surveys. Results were presented and discussed in the report. Use of the results were also discussed: for example, based on NSSE and alumni survey data that was part of the assessment of the written communication competency, the *2000 Task Force on UMBC as an Honors University* concluded that students need more writing experience and proposed that an additional writing course be required of all students.

University of Maryland College Park

Institutional Executive Summary of 2004 Learning Outcomes Assessment Report

At the beginning of the Spring Semester, 2004, a group of deans at the University of Maryland charged the Dean of Undergraduate Studies to meet with faculty they designated to set the learning outcomes goals and objectives for two of the five "essential elements of an undergraduate education" identified by Middle States and adopted by MHEC. They chose critical thinking and writing to start this process, to follow one of the most important lessons learned, both from the professional assessment staff at American Association for Higher Education (AAHE), as well as from assessment colleagues from other institutions, that this kind of assessment project, if it is to make any difference at all on campus, must be led and owned by the faculty, and must start small and build on early successes. This group, called the Provost's Commission on Learning Outcomes Assessment, was made up of faculty from chemistry, education, business, engineering, history, the libraries, English, foreign languages, and staff from Institutional Research and Planning. The Assessment Commission met several times toward the end of spring semester, and then for a two-day retreat in early June. Invited to present to the group during the retreat were: Rachelle Brooks, Director of Research at the American Association of Universities, on assessing critical thinking and a related project that had been piloted at UM; and Shirley Logan, Associate Professor of English and former chair of the Conference on College Composition and Communication, on the assessment of writing. The Assessment Commission discussed at length the issues surrounding these topics, and then agreed on the draft of the learning outcomes goals for critical thinking and writing, identified below.

Informed by lessons learned at an AAHE workshop and from other assessment experts, the Assessment Commission made a series of decisions about how an assessment of these two goals would be administered. The ideal assessment would include a pre- and post test, at the beginning of the first year and toward the end of the student experience (junior or senior year), to measure the value added to the undergraduate during their time at UM.

The Assessment Commission made some assumptions about both of these assessments: They should be graded assignments within identified courses; they should be done outside of class, with enough time designated to allow a diligent student to write an essay and revise as appropriate (not a pressured first draft); they should be submitted electronically; they would not be anonymous, but rather kept confidential, allowing us to track across years; the essays would be evaluated by a paid group of graders; and, the first-year assessment should be done within the first three to five weeks of the students' first year.

During the fall of 2004, the Assessment Commission will make decisions on the following topics: In which course or courses the assessments should be administered during the first year, and the junior or senior year; the type of writing prompt or instrument that would be appropriate for all first-year students, and for all upper-class

students; the specific process and instruments for assessing critical thinking and writing as they have been defined; the design of the rubrics for analyzing results; how the results will be disseminated and used; and, the definition of the goals and objectives for the remaining Middle States essential elements (oral communication, scientific and quantitative reasoning, information literacy, and technological competency).

In spring 2005, the Assessment Commission plans a first pilot of whatever instruments it identifies as appropriate for critical thinking and writing, and then a second pilot in fall 2005. They will analyze results, make changes to the instruments and process if necessary, and continue to plan for the assessment of other outcomes. By fall 2006, they will be piloting the other assessment instruments, and informing the community of the results. At that point, these and additional faculty will review the results in light of the goals that have been set, and propose changes based on results as appropriate.

CORE – General Education Learning Outcome Goals

Undergraduate Studies holds the responsibility for the implementation of CORE, the comprehensive General Education program. Major decisions concerning CORE content and requirements are incorporated within the campus process of shared governance through the Senate. The campus Senate's CORE Committee consists of designated faculty and student representatives and is charged yearly by the Senate Executive Committee. Subcommittees that are chaired by the larger committee of faculty representatives are responsible for CORE course reviews. For the 2004-2005 academic year, the subcommittees further will be charged with developing specific learning outcome goals and objectives for all of the CORE areas and sub-areas. Those goals and objectives will be published and articulated within individual course syllabi and will be assessed within those courses.

Assessing Quality of University Education and Research (AQUER) Research Projects

During the last five years, the Association of American Universities (AAU) has established a research agenda addressing quality in higher education. The Dean of the College of Education and the Provost are currently in final negotiations with the AAU to take over that research agenda beginning this fall and administer it here through the establishment of a research center devoted to the study of assessment of higher education and research. This center would directly benefit the entire university's efforts in measuring student learning outcomes, directed by the research agendas of UM's venerated faculty.

The central goal of the AAU Assessing Quality of University Education and Research (AQUER) project is to better conceptualize quality in higher education and increase the understanding of the factors that contribute to high quality university education and research. In so doing, the project will develop improved measures of quality that research universities can utilize to enhance quality at their institutions, and to help produce more accurate and informative institutional descriptions and assessments. Among the more important dimensions of quality identified for research is that of the

impact of a university education on college students. What outcomes, if any, are the unique results of undergraduate educational experiences at research universities?

Assessing quality of university education and research is an inherently complex endeavor. The activity itself is situated in institutional, policy, and political contexts. Further, it must be driven by an interdisciplinary body of theory and rigorous research methodology, including at least the following disciplines: measurement, statistics, cognitive development, organizational psychology, program evaluation, and higher education administration. Capitalizing on its role as the flagship research university of the state of Maryland, UM will address these challenges and add to this growing body of knowledge that will inform the future assessment practices of this institution and others. In addition to the AQUER projects, the center will also eventually house other projects relating to the study of assessment of higher education and research. The center's interdisciplinary nature and administrative connections will keep the focus on both the individual projects and the complex interrelationship of these topics within research universities.

Learning Outcomes Goals and Results

What follows are sections covering the five essential elements of an undergraduate education as identified by Middle States. This report will focus on the University-wide efforts, as they are the efforts most in development at this time in preparation for our Middle States visit in 2007. Each section stipulates either the stated goal as it has been defined by the Provost's Commission on Learning Outcomes Assessment, or the schedule by which it will be defined. Then, direct and indirect assessment results are presented.

There are several surveys administered to the students at the University of Maryland that address various aspects of student learning. UM participated in the National Survey of Student Engagement (NSSE) for 3 years (and has recently switched to a less frequent schedule). This is a national survey that also allows groups of universities to join consortiums and share questions, which UM has done with a number of AAU institutions. UM also administers two in-house designed surveys nearly every year. The Beginning Student Survey (BSS) is administered in class (targeted at classes with a high percentage of freshmen) during the eighth week of the fall semester. The University of Maryland Student Survey (UMSS) is administered during the spring semester and targets juniors and seniors. Differences in responses between the two populations can be considered as a cross-sectional design, but caution is urged since the academic profiles of UM's entering classes are continually improving, creating a potential bias, and with the exception of the NSSE, the instruments' validity and reliability have not been analyzed.

None of these surveys are perfect outcomes assessment tools; many of the items included reflect input or process issues, and not outcomes. However, as UM works to develop more appropriate tools for directly measuring outcomes, parts of those surveys provide a useful starting point at which to begin these conversations. The results of these surveys have been presented on campus in public forums and on the web in the form of reports to the community, but haven't been integrated into the decision-making process of the university, due to the fact that they are the only evidence gathered so far. In the future,

when more valid, reliable, and direct measures are available, decisions about the curriculum can be influenced by those results.

Critical Analyses and Reasoning

Critical Thinking Goal Draft
University of Maryland undergraduates will learn and develop critical thinking skills that they can successfully apply within a wide range and intersection of disciplines inside and outside of academia.

Objectives – University of Maryland undergraduates should:

1. Identify and summarize the issue(s) and the position of the source.
2. Distinguish the key assumptions.
3. Recognize and state pertinent perspectives and positions including the student's own.
4. Analyze the relevance of the contexts.
5. Assess the quality of supporting information and provide additional evidence.
6. Appraise conclusions, implications, and consequences.
7. Formulate hypotheses and persuasive arguments.

AAU Critical Thinking and Analytic Reasoning Study
In March of 2004, the campus completed analysis of its first general assessment of student's critical thinking and analytical reasoning skills of undergraduate students. The pilot study was conducted as a component of the Association of American University's project to assess the quality of university education and research (mentioned above in the "Process" section). The project had several objectives: (1) the campus wanted to assess the feasibility of measuring analytical reasoning and critical thinking skills outside of the classroom environment; and, (2) the campus wanted to measure the 'added value' that a university education contributes to a student's critical thinking and analytical skills.

The sample population was comprised of undergraduates evenly divided between freshmen and seniors. In addition, there was an over sampling of Honors program participants. Students were paid to participate. The study incorporated the following control variables: SAT scores, high school and undergraduate grade point averages, college transcript and college major. Critical thinking and analytic skills were measured via the use of five questions: two of the questions were drawn from the social sciences, one question was derived from the humanities, one question tapped abstract spatial reasoning skills, and the last question drew upon abstract mathematical reasoning skills.

Three of the questions required an answer in the form of an essay. A respondent was deemed to have completed the instrument if the individual completed at least one essay. Based on this criterion, the instrument had a response rate of 33%. The sample population was comprised of 1174 students; 391 of whom completed the instrument. Among the respondents, 68% were white and 54% were female. Fifty-five percent of the respondents were first-year students.

The university experience was shown to provide 'added value'. The study found that among Honors students, seniors outperformed first year students. Among non-Honors, students, however, seniors did not outperform first year students. It was the opinion of the AAU researchers that comparing the scores of UM freshmen and seniors in a cross-sectional design was an inherently flawed endeavor, given the large differences in incoming characteristics. The freshmen academic profile has increased significantly since these seniors were admitted, and although some of those differences can be controlled within the analysis, the external researchers believed that the only valid measure of value added in such a changing environment would be one that incorporated a longitudinal design. In the meantime, future iterations of this instrument will attempt to find better control variables to capture the existing abilities of incoming students. This should lead to better estimates of added value.

Survey Results
Surveys show that there is almost a ten-percentage point difference between the levels of freshmen and seniors regarding their reports of working on projects that requires integrating information from various sources (77% to 86% in 2003). There is almost a 20-percentage point difference between freshmen and seniors putting concepts together across courses (44% to 62%). There is less of a difference between the course expectations of synthesizing and organizing information more into more complex interpretations (67% to 70%). Students reported that UM contributed to their development in thinking critically and analytically across those years (79% to 86%), and in solving complex real-world problems (43% to 51%). They rated their abilities in seeing relationships among ideas at higher (66% to 80%), presenting a persuasive argument (54% to 64%) and applying what they learn to other situations (70% to 81%).

Written and Oral Communication

Writing Goal Draft
Using written Standard English, University of Maryland undergraduates will communicate clearly and effectively for different audiences and purposes.

Objectives – University of Maryland undergraduates should:

1. Incorporate critical inquiry in their writing.
2. Demonstrate writing as a process involving invention, organization, drafting, revision, editing, and presentation.
3. Demonstrate proficiency in conventions of genre, documentation, grammar, spelling, syntax, and punctuation.
4. Demonstrate awareness of the audience, situation, and purpose.

Survey Results
Survey results show that students reported that UM contributed to their development in writing clearly and effectively between the freshmen and senior years (65% to 75%) and speaking clearly and effectively (45% to 62%). More seniors reported having made a class presentation (20% to 48%). They reported increased abilities in listening

effectively (67% to 79%) and writing effectively (51% to 57%), but not in speaking effectively (unchanged at 52%).

Scientific and Quantitative Reasoning

Scientific and Quantitative Reasoning Goal
To be defined Fall 2004.

Survey Results
Survey results show that coursework among freshmen and seniors equally emphasize analyzing elements of an idea (84% to 87%) and applying concepts to new situations (73% to 74%). Seniors reported that UM contributed to their development in analyzing quantitative problems more than freshmen (61% to 75%).

Technological Competency

Technological Competency Goal
To be defined fall 2004.

Survey Results
Surveys show that freshmen and seniors equally report using electronic medium to discuss or complete assignments (66% to 68%), but that there is almost a ten percent difference in using e-mail to communicate with an instructor (77% to 86%). Students reported that UM contributed to their development in using computing and information technology between the freshmen and senior years (63% to 75%), and that there is an increase in the student perception of their abilities across those years as well (51% to 63%).

Information Literacy

Information Literacy Goal
To be defined Fall 2004.

Project SAILS
In Fall 2003, the University of Maryland participated in the Standardized Assessment of Information Literacy Skills project. The standards include: determining the nature and extent of the information needed; accessing needed information effectively and efficiently; evaluating information and its sources critically and incorporates selected information into his or her knowledge base and value system; understanding many of the economic, legal, and social issues surrounding the use of information and accesses and uses information ethically and legally. The average student at the University of Maryland responded between .53 and .56 with a 1 representing answering all of the most difficult questions accurately, results that matched the national average.

Survey Results
Survey results show that coursework for freshmen and seniors almost equally emphasize making judgments about the value of information (61% to 64%). Seniors rate their abilities higher in revising thinking based on new information (63% to 77%), understanding diverse cultural, political and intellectual views (62% to 68%), and evaluating the reliability of information (52% to 66%).

Executive Summary Conclusion
The University of Maryland is making great strides in its assessment endeavors. Given the size of the institution and the number of faculty and staff who all have a role to play in making sure students are learning what our programs are designed to teach, such a complex system will take years to establish and perfect. As our goals are stated and agreed upon, and instruments identified and tested, then can we benefit from the assessment results which will help us refine our programs and improve student learning.

MHEC Staff Review of 2004 Student Learning Outcomes Assessment Report

University of Maryland College Park created a Provost's Commission on Learning Outcomes Assessment in spring, 2004 to set the learning outcomes goals and objectives for the "essential elements of undergraduate education." UMCP has laid out an ambitious plan for the assessment project implementation, coinciding with preparation for their Middle States visit in 2007. The plan and timeline were discussed in detail in this report.

The Provost's Commission has chosen critical thinking and writing as the general education competencies to address first. Draft definitions for these have been formulated and direct assessment instruments will be designed and pilot tested in 2005. In addition, UMCP, as part of an Association of American Universities project to assess the quality of university education and research, conducted a study in spring 2004 to assess the critical thinking and analytical reasoning skills of undergraduates. Initial results suggested that the university experience provided "added value," though further research is planned to improve the design and instrument.

Also, in fall 2003, the University of Maryland participated in the Standardized Assessment of Information Literacy Skills project. Results of this study were discussed in the report.

UMCP has used indirect methods to assess learning, including the NSSE and other student surveys. The report presented and discussed NSSE results relating to general education competencies. Use of assessment results is planned for the future, when, according to the report, "...more valid, reliable, and direct measures are available, decisions about the curriculum can be influenced by those results."

University of Maryland Eastern Shore

Institutional Executive Summary of 2004 Learning Outcomes Assessment Report

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: 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 effectively support students' choices of majors and to prepare them for lifelong learning.

Significant progress has been made with regard to the assessment of written communication and information literacy. Some progress has been achieved concerning the other three General Education competencies. Meanwhile, the University will be visited by a team from the Middle States Commission on Higher Education in 2006 and the University is committed through its management and representatives from its 17 departments to continue to strengthen its assessment plan for General Education and overall institutional effectiveness in achieving student learning outcomes.

Written and Oral Communication

Faculty assess student competence in written communication using the English Language Proficiency Examination (EPE), a high stakes assessment of student papers developed by the faculty of the Department of English and Modern Languages. This test is given to students after they have completed English courses ENGL 101 (Basic Composition I) and ENGL 102 (Basic Composition II). To ensure consistency, each paper is scored by two faculty, using an analytic scoring rubric. In the event that there is disagreement on scoring, a third rater reviews the paper(s). Students who do not pass EPE are ineligible for degree awards regardless of their performance in their majors. During the period between fall 2001 and spring 2004 the pass rates for EPE have ranged between 88% and 91%. Based on this performance, faculty have concluded that students adequately achieve competency in written communication. Students who do not pass are provided additional support in preparing to retake the exam.

Currently, a systematic assessment process using a common rubric for observation of oral communication is being considered and will be included in future SLOAR reports.

Critical Analysis and Reasoning

Competence in critical analysis and reasoning at UMES is defined as the ability to demonstrate in writing and speaking the use of logic and balanced thinking, the formulation of solutions to problems by objective consideration of all possible and

feasible alternatives, and the understanding and recognition of the value of logic as a process for exercising, discerning and informed judgment.

At the present time UMES offers instruction in critical analysis to meet program specific needs of departments such as Physician Assistant, Business and Natural Sciences. Courses in these departments and others emphasize the application of ethical practice and as such are limited to the needs of the disciplines. UMES recognizes the need for a required course for all students to demonstrate their critical analysis and reasoning capabilities within the General Education curriculum. To this end, the University is reviewing its General Education curriculum to provide adequate emphasis on a competency that is so fundamental to its work.

Scientific and Quantitative Reasoning

Scientific and quantitative reasoning at UMES is the ability to identify and apply basic scientific principles to enhance our understanding of the universe. It is also the ability to assign and use numbers, read and analyze numerical data, create models, draw inferences and support conclusions based upon principles using data. In General Education the department of Natural Sciences (Biological Sciences, Physics and Chemistry) and Mathematics have identified four outcomes for this competency: (1) use of numerical data in solving real-world problems, (2) analysis of data to support research, (3) understanding and interpreting data expressed in charts and graphs and (4) applying scientific method to correct formulas and technologies in appropriate settings. Appropriate strategies are being identified/developed to evaluate the scientific reasoning competence meaningfully and effectively to ensure the continuous improvement of student learning. Faculty plan to develop/identify tools for these outcomes within the General Education program during the 2004-2005 academic year.

Technological Literacy

Technological literacy is defined as a set of abilities/skills involving students' use of hardware, software and services. The overarching outcome for technological literacy is effective operation of a personal computer—basic operations relating to an operating system, word processing, spreadsheet/graphic software, PowerPoint, database application and the Internet.

Students are assessed for technological literacy at the course level in many discipline-based courses. A core course on computer applications is being considered to meet the General Education needs for information technology for students. Currently faculty have identified Course CSDP 121 – Microcomputer Applications as the course that should be required for all freshmen. An appropriate assessment tool will be developed and piloted by faculty in the 2004-2005 academic year. Thus, no assessment results are available at the present time.

Information Literacy

Information literacy at UMES is defined as the provision of a framework that enables students/library patrons to identify, retrieve, evaluate and use information effectively. It includes social, legal and economic issues surrounding the use of information. Students

will acquire the skills necessary to succeed in academic and/or professional arenas, thus building a framework for lifelong learning by participating in activities that promote their information literacy abilities.

Currently, classes on information literacy are offered by the library faculty on an as-needed basis. Discipline faculty request information literacy instruction for students for the courses they teach. Thus, library faculty provide customized instruction to meet these needs which they assess through end-of-class multiple choice tests and surveys of students and the requesting faculty. Based on class tests and survey results, library faculty have developed a required course (LIBR100) that has received approval for implementation in the fall of 2004. Library faulty will in due course develop appropriate assessment tools to be pilot-tested during the 2004-2005 academic year. Thus, more comprehensive direct and indirect measure assessment results will be available future SLOAR reports.

MHEC Staff Review of 2004 Student Learning Outcomes Assessment Report

University of Maryland Eastern Shore has defined all five general education competencies. For written communication, UMES has been using a direct assessment method developed by the faculty in 2001 (the English Language Proficiency Exam, or EPE). It is given to students after completion of two English composition courses and uses an analytic scoring rubric. Pass rates for the EPE were discussed. Examples of ways in which results have been used to improve learning were not given, however, according to the report, "...consistent and recurrent areas of difficulty are targeted for special attention by the department's freshman composition instructors."

To address information literacy competency, results from course-level tests and surveys administered to students in library instructional programs have led to the creation of a one-credit course for all freshman. Methods to assess other competencies are being developed and are planned to be pilot- tested in the 2004-2005 academic year. It is the University's goal that by 2007, a comprehensive assessment plan will be in the process of being implemented. These activities are taking place in conjunction with the University's preparation for its 2006 Middle States visit.

University of Maryland University College

Institutional Executive Summary of 2004 Learning Outcomes Assessment Report

Driven by the strategic plan of the university, University of Maryland University College (UMUC) has been engaged in a dedicated effort over the past three years to develop a sound, systemic student learning assessment process that is consistent and supportive of the mandates from the Middle States Commission on Higher Education (MSCHE) and the Maryland Higher Education Commission (MHEC). The process is designed to assess the learning and intellectual growth of students within specific core learning areas in order to provide data for improving the quality of undergraduate and graduate education at UMUC.

OVERARCHING PROGRESS

Over the past three years, UMUC has achieved significant progress with the integration of a learning assessment initiative at the institutional, programmatic, and course levels. Overarching strides relative to the implementation of a comprehensive student learning assessment process include:

1. Development of an infrastructure that will facilitate and support the activity necessary to institutionalize a learning assessment process;

2. Commitment of funds and resources that will support a comprehensive learning assessment initiative;

3. Establishment of a long-range plan, entitled the UMUC Plan for the Assessment of Student Learning Outcomes, that will provide a framework to guide all learning assessment activities;

4. Adoption of institutional core learning areas that will be achieved within the School of Undergraduate Studies and the Graduate School; and

5. Implementation of a variety of assessment methods that will ensure valid measurement of learning at the institutional, programmatic, and course levels.

This report provides an expanded discussion of each of the aforementioned areas of progress.

SUMMARY OF CORE COMPETENCY DATA

UMUC has ongoing and/or planned assessment efforts at the institutional, programmatic, and course levels within each of the specific core learning areas. A summary of progress for each the specific core learning areas is as follows:

Information Literacy
At the institutional level, UMUC has incorporated standardized assessments into two required courses and, subsequently, gathered significant data relative to information literacy for each consecutive term since spring 2003. These two required courses, LIBS 150 (Information Literacy and Research Methods) and UCSP 610 (Library Skills for the Information Age), serve as the primary tools for assessing information literacy.

Data have been gathered from the common pre- and post-examinations for LIBS 150 from each term since spring 2003 (Total N=5554 students). Data has also been gathered from the integrated library component of UCSP 610 within ten sections of ADMN 601 (The Manager in a Technological Society) for the fall 2003 term (N=191 students). The LIBS 150 data have indicated that student performance has consistently improved one standard deviation (approximately 14%) from pre-test to post-test while data from the ADMN 601 integrated library component have provided significant findings useful for faculty development and course enhancement. More detailed analyses of both assessment projects are provided within this report.

In addition to gathering data from LIBS 150 and ADMN 601, UMUC has incorporated a common research requirement within all sections of the undergraduate course, ENGL 101 (Introduction to Writing). Within the Graduate School, all UMUC graduate degree programs have delineated program outcomes specific to information literacy and aligned such outcomes with program level and course level methods/tools for assessing student learning. The Graduate School has also implemented a school-wide requirement that all graduate students complete UCSP 610 within the first six credits.

Technology Fluency
At the institutional level, UMUC is in the process of incorporating standardized measures of assessment within LIBS 150 and UCSP 610. As noted above, LIBS 150 and UCSP 610 both serve as primary tools for assessing the area of information literacy. However, given that the two courses are delivered fully online and require student demonstration of multiple technology-based skills, the courses will also serve as secondary tools for assessing technology fluency. The integration of the technology assessment into LIBS 150 and UCSP 610 is underway. Thus, data collection specific to technology fluency has not yet begun within LIBS 150 or UCSP 610.

At the undergraduate level, standardized tools that assess learning in the area of technology fluency have been incorporated into the required course IFSM 201 (Introduction to Computer-Based Systems). Data have been gathered in IFSM 201 from two consecutive terms (Fall 2003 and Spring 2004). A detailed analysis of the IFSM 201 data is provided within this report. Findings have revealed specific technology-related areas of learning success, as well as areas for improved learning.

Within the Graduate School, all graduate degree programs have delineated program outcomes specific to technology fluency and aligned such outcomes with program level and course level methods/tools for assessing student learning.

Written and Oral Communication
In accordance with the timeline set forth in the UMUC Plan for the Assessment of Student Learning Outcomes, the collection of baseline institutional data in the area of written communication will begin in August 2004. In preparation for the assessment of written communication, UMUC has implemented the use of Accuplacer® to provide baseline data relative to the entry level writing skills of undergraduate students. The collection of baseline institutional data in the area of oral communication will begin in August 2005.

Within the School of Undergraduate Studies, UMUC has developed consistent writing standards for undergraduate courses, as well as increased efforts to enforce prerequisite restrictions for undergraduate writing courses. The School of Undergraduate Studies has also implemented a standardized rubric for assessing student learning in the area of writing and provided critical faculty training in the use of standardized rubrics. Within the Graduate School, all graduate degree programs have delineated program outcomes specific to communication skills and aligned such outcomes with program level and course level methods/tools for assessing student learning.

Critical Analysis and Reasoning
In accordance with the timeline set forth in the UMUC Plan for the Assessment of Student Learning Outcomes, the collection of baseline institutional data in the area of critical analysis and reasoning will begin in August 2004. In preparation for the assessment of critical analysis and reasoning, UMUC has incorporated critical thinking standards into the development of the writing standards for the School of Undergraduate Studies. In addition, the Graduate School has delineated program outcomes for each degree program specific to critical analysis and reasoning and aligned such outcomes with program level and course level methods/tools for assessing student learning.

Quantitative Reasoning
In accordance with the timeline set forth in the UMUC Plan for the Assessment of Student Learning Outcomes, the collection of baseline institutional data in the area of quantitative reasoning will begin in August 2005. In preparation for the assessment of quantitative reasoning, UMUC has implemented the use of Accuplacer® to provide baseline data relative to the entry level math skills of undergraduate students. At the program and course levels, UMUC has delineated program outcomes specific to quantitative reasoning for all graduate degree programs and implemented a common examination into selected undergraduate math courses.

Scientific Reasoning
In accordance with the timeline set forth in the UMUC Plan for the Assessment of Student Learning Outcomes, the collection of baseline institutional data in the area of scientific reasoning will begin in August 2005. At the course level, the School of Undergraduate Studies has implemented a common examination into the introductory biology course.

CONCLUSION

UMUC has implemented a learning assessment initiative that will ensure continuous improvement of teaching and learning at UMUC. The process is designed to reflect the UMUC strategic plan, as well as move the university forward as the globally competitive institution of choice. This report provides an overview and analysis of the assessment process and summarizes the available findings and resulting action from assessment activities completed during 2001-2004. The report concludes with a preview of forthcoming plans for ensuring the strength and vitality of learning assessment at UMUC.

MHEC Staff Review of 2004 Student Learning Outcomes Assessment Report

University of Maryland University College developed and approved the first *UMUC Plan for the Assessment of Student Learning Outcomes*. Three years in development, this plan is discussed in detail in UMUC's report and a detailed timeline for implementation presented. While the plan includes both undergraduate and graduate assessment efforts, only the former activities are reviewed here.

In 2003, UMUC adopted ten institutional core competency areas for the School of Undergraduate Studies. All five general education competency areas have been defined.

In the area of information literacy, a direct assessment method in an online Information Literacy and Research Methods course has been piloted (pre-post test design). Based on the pilot test results, the Library Course faculty is considering devising additional learning activities that emphasize search statement logic and Boolean logic. The collection of baseline institutional data from information literacy assessment began in August 2004.

To assess technological competency, UMUC delivers a common exam at the program level; results data are currently being analyzed. For the other general education competencies, methods of assessment are being selected.

Morgan State University

Institutional Executive Summary of 2004 Learning Outcomes Assessment Report

For many years, the General Education Program at Morgan State University has been recognized as one of the country's exemplary liberal arts programs. As early as 1969, the Middle States Association of Colleges and Schools identified the Morgan General Education Program as a national model. More recently, in its 1998 periodic accreditation review of the University, it, once again, praised Morgan for the strength of that program. In addition, a March 1999 report of Maryland's Calvert Institute for Policy Research singled out Morgan's General Education Program as first among those at state institutions in maintaining a strong general knowledge component that avoids the cafeteria-style approach to learning.

Over the years Morgan's General Education Program has met and exceeded national standards and the requirements of accrediting agencies. In fact, the University has continued periodically to review and revise the program to ensure its currency with those external standards, as well as the needs of its student body. Its 1989 review of the program resulted not only in a number of changes in content, but also the mandate for a stronger monitoring program for student learning and the implementation of a standard institutionally-designed exit examination in each required general education course to ensure those outcomes. Between 1989 and 2002, the departments offering required general education courses incrementally implemented those exit examinations, changing and refining them as they monitored and examined student performance. During the 2002-2003 academic year, the University once again reviewed the General Education Program. This periodic review resulted in the creation of an Office of General Education to coordinate and monitor the program more comprehensively and, among other changes, called for the expansion and improvement in student learning outcomes assessment, including closer ties to nationally-normed assessment instruments.

Overview of General Education Program Objectives and Student Learning Goals: Morgan's General Education Program embraces the five 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 as 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, 2003-2006 53-54).*

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" (*MSU Catalog, 2003-2006* 54).

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. Through these courses and university-wide examinations, Morgan achieves the student learning goals outlined above and ensures the competency standards set by Middle States.

Definitions of Competencies: Morgan defines these competencies very clearly in its catalog and in the syllabi for the courses in which they are achieved.

1. It 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.

2. It 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.
3. 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 problems.
4. Morgan defines the *critical analysis and reasoning competency* as: (1) being able to analyze arguments as to their 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.
5. It 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.
6. Morgan's definition of *technological competency* is still evolving, as the University completes the design of a new required course in "Computer Literacy, Technology, Society and Human Values." As the title suggests, this competency will likely be defined as understanding 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 will be interdisciplinary, not just technical, and it will embrace students' use of technology in their majors.

Levels of Assessment of Competencies: For the most part, assessment of these five competencies takes place at the course and program levels. Assessment of individual student learning, of course, is embedded in the courses, in department-generated exit examinations that are used in the courses and in the university-wide Speech Proficiency Examination and Writing Proficiency Examinatin. Program assessment is embedded in departmental, and periodically college/school, reviews of collective student performance in the courses. With the creation of the Office of General Education and the Office of Student Retention, more program assessments will be made at the university level in order to measure institutional effectiveness. Plans for these university-wide assessments are evidence of Morgan's recognition of the importance of having a formal system for measuring student learning in the General Education Program and, equally, its commitment to using those assessments to improve instruction and curriculum design for the program.

Indirect and Direct Measures of Competencies: The competency-based courses in the General Education Program at Morgan use a variety of indirect and direct measures of student learning. They use the traditional, standard methods of determining competency by way of graded quizzes, tests, writing assignments, essays, class presentations, group discussions, and other in-class and out-of-class activities. In addition, all of the required general education courses employ a department-generated exit examination as a comprehensive assessment of student learning in the course, including determination of competency in these five areas:

1. written and oral communication: exit examinations in ENGL 101-102: "Freshman Composition I and II" (scored with a department-generated scoring guide) and HUMA 201-202: "Introduction to Humanities I and II;"
2. scientific and quantitative reasoning: exit examinations in BIOL 101: "Introduction to Biology;" CHEM 101: "General Chemistry;"; MATH 109: "Mathematics for the Liberal Arts;" MATH 111: "College Algebra;" MATH 113: "Introduction to Mathematical Analysis I;" MATH 114: "Introduction to Mathematical Analysis II;"
3. critical analysis and reasoning: an exit examination in PHIL 109: "Introduction to Logic;"
4. information literacy: an exit examination (research paper scored with a department-generated scoring guide) in ENGL 102: "Freshman Composition II" (research); and
5. technology competency: an exit examination currently being designed for the new course, GENL 201: "Computer Literacy, Technology, Society and Human Values."

Moreover, assessment of student competency in oral and written expression is made beyond the course level in a required Speech Proficiency Examination in the sophomore year and a Writing Proficiency Examination in the junior year, both of which assess whether these two competencies, learned at the freshman level, have been reinforced in other courses at the University and retained by students.

In addition to these traditional measures, the course-embed departmental exit examinations, and the university-wide competency examinations in speech and writing, departments gather and examine, annually, data on student grades earned in these courses, as a means of assessing instructional and program effectiveness. Finally, a significant part of the assessment package is student evaluations of every course at the end of each semester. In these evaluations they provide valuable information on their assessment of program and instructional effectiveness.

Results of Assessment Activities: Data on the pass/fail rate on exit examinations in these five competencies has not be collected and analyzed regularly and systematically. However, since passing the courses and the examinations in which competency in these five areas is measured is a requirement for graduation at Morgan, the pass/fail rate in these courses is a reliable indication of the extent to which students have demonstrated competency in them. The average pass/fail rate in those courses over the period 2001-2004 is reflected below:

Average Pass/Fail Rates in Courses Teaching the Five Competencies 2001-2004

Course	*Average Percent Passing*	*Average Percent Failing*
ENGL 101	76.9%	23.1%
ENGL 102	77.8%	22.2%
MATH 109	85.1%	14.9%
MATH 113	78.8%	21.2%
MATH 114	80.3%	19.7%
BIOL 101	84.0%	16.0%
CHEM 101	88.7%	11.3%
PHYS 101	98.6%	1.4%
PHIL 109	92.7%	7.3%
GENL 201	NA	NA

The pass/fail rate for the Writing Proficiency Examination over the past two academic years is: 71.9% passing and 28.1% failing. Students who fail that examination are required to take ENGL 350: "Writing Practicum." The pass/fail rate for that course is 98.7% passing and 1.3% failing. No data are available for the Speech Proficiency Examination.

With the establishment of the Office of General Education and the Office of Student Retention, both of which will be data-driven in many respects, Morgan will be more systematic in its collection and analysis of data on student performance in these competency areas.

Use of Assessment Activities to Enhance Teaching, Learning and Strategic Planning: Morgan has strong programs of student learning and program assessment, especially in its accredited and re-accredited degree programs, such as architecture, business, chemistry, education, engineering, medical technology, public health, social work, etc. In those programs, assessments of student learning and instructional and program effectiveness are systematic, regular and often nationally-normed, and they are used to enhance teaching, learning and program planning. The institution recognizes the need to replicate these successful assessment programs across the campus, notably in the competency areas of the General Education Program.

In those areas of the program, over the years assessment initiatives have been undertaken to strengthen a number of its indirect measures of learning and to use those measure to enhance teaching and learning. The program has re-affirmed high grading standards at the departmental level, monitored and studied student grades in general education courses and on language arts proficiency examinations, and held campus-wide faculty dialogues about re-enforcing language arts and critical thinking skills campus-wide. It has, notably, put into place exit examinations in required general education courses in an effort to "standardize" competency levels required throughout the departments and has used the results of those examinations to modify course content, teaching approaches and the structure of the examinations themselves. There has, however, been little uniformity in these measures and efforts from department to department and program to program.

To address the need to "standardize" assessment across the campus and specifically in the General Education Program, the University has established the Office of General Education to coordinate the program at the university level and especially to strengthen its assessment component, which is one of its program objectives. It has also established a university-wide Office of Student Retention and student retention programs in all colleges, schools and institutes and charged them with monitoring student performance, notably in general education skills courses at the freshman and sophomore levels, and intervening to identify and address student learning needs and challenges. In addition, the President has appointed a faculty and administration work group to develop a comprehensive university-wide plan for the assessment of institutional effectiveness and student learning at all levels—courses, programs, schools, institution. The task force consists of deans and directors of colleges, schools and institutes offering undergraduate degree programs and key faculty members with expertise and experience in outcomes assessment. That task force is currently completing the first stage of its examination of existing assessments instruments being used and assessment programs in place at the University and is working concurrently to gather information about regional and national trends. It will present its report to the faculty in the spring of 2005, and the University should be poised to begin to implement its features, incrementally, during the 2005-2006 academic year. These new initiatives should take the University to the next level by producing a comprehensive, unified and uniform program for assessing learning, teaching and institution effectiveness and for effective strategic planning.

Morgan State University made steady progress over the years in putting together an assessment program to ensure student competency in written and oral communication, scientific and quantitative reasoning, critical analysis and reasoning, information literacy and technology competency. With the current initiatives that are underway, it should have shortly an assessment program that can serve as a model for higher education.

MHEC Staff Review of 2004 Student Learning Outcomes Assessment Report

Morgan State University has recently established the Office of General Education to coordinate ongoing assessment efforts. The President's Task Force on Assessment, charged with developing a comprehensive plan for the assessment of student learning, will be reporting during the 2004-2005 academic year.

Morgan has defined general education competencies in detail and uses a combination of direct and indirect methods to assess them. Written and oral communication competency is assessed directly by requiring all juniors to take writing and speech proficiency exams scored by rubric. Pass rate data on the writing proficiency exam were presented and discussed in the report. Analysis of writing proficiency exam results has led to campus-wide faculty dialogues about re-enforcing language arts and critical thinking skills campus-wide.

Competency assessment in scientific/quantitative reasoning and critical analysis/reasoning takes place at the course level in the form of course grades and also at departmental exit examinations. Information literacy competency is determined by review of student research papers scored by rubric. Technological competency assessment is in development.

Pass rates in selected general education courses were also discussed in the report. During the 2004-2005 academic year, Morgan plans to administer pre-post tests in all general education skills courses to give a better indication of learning in specific courses. The Office of General Education is planning to systematically analyze assessment results to improve curriculum in the future.

St. Mary's College of Maryland

Institutional Executive Summary of 2004 Learning Outcomes Assessment Report

St. Mary's College of Maryland (SMCM) has many assessment activities in place for the ongoing monitoring and guidance of its programs and operations. These activities are reviewed by the College's Assessment Committee which reports to the Provost. This report summarizes those activities using the Maryland Higher Education Commission's intersegmental workgroup format with a focus on the five competencies related to general education and essential skills that are used in the Middle States accreditation process. Each of these five competencies is discussed in terms of the five topics suggested by the workgroup. In addition, the full report includes an introductory description of how each competency is addressed by the curriculum at St. Mary's is provided. This executive summary provides a brief summary of the assessment results obtained for each competency.

- *Written and oral communication.* Recent surveys of graduating seniors confirm that the College's programs enabled them to speak and write clearly. Responses obtained in the surveys, however, indicate that some alumni wish that they had more experience with public speaking while at St. Mary's. This input will help inform our General Education Committee's current review of the general education curriculum.

- *Scientific and Quantitative Reasoning*: Both first-year students and seniors feel that the St. Mary's experience has had a positive impact on their scientific and quantitative reasoning. The direct and indirect measures used to assess scientific and quantitative reasoning indicate high levels of achievement and satisfaction in these areas. This is 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, seeking to improve and maintain the high standards provided in training in scientific and quantitative reasoning.

- *Critical Analysis and Reasoning:* Recent surveys of graduating seniors and alumni confirm that the College's programs enabled them to think critically, to inquire openly and examine assumptions, and to consider a subject from a variety of perspectives. In addition, panels of judges using a single-blind procedure, the portfolio sorting technique, have reliably evaluated senior essays as providing greater evidence of critical thinking than first-year student essays. These results are welcome news for a college that prides itself for offering a fine liberal arts education. Even so, the College will continue to monitor these important variables to assure that these important goals are being met.

- *Technological Competency.* Technological competency is not a goal of the general education curriculum at St. Mary's College of Maryland. Still, recent surveys of graduating seniors and alumni confirm that the College's programs contributed to

their use of computing and information technology. The College will continue to monitor this important adjunct of its educational programs.

- *Information Literacy:* Information literacy also does not appear among the goals of the general education curriculum at St. Mary's. However, the successful completion of any course of study at St. Mary's entails proficiency in being able to locate and use sources of information. Recent surveys of graduating seniors and alumni confirm that the College's programs contributed to their ability to locate and utilize sources of information. The positive evaluations received in these surveys provides assurance that this important aspect of the College's educational programs is generally successful in meeting the needs of our students. It will continue to be a subject of our assessment efforts.

The consistently high evaluations described in the full report indicate that a St. Mary's education is valued for imparting skills in the five areas of competency described by the Middle States Commission. The College will continue to monitor these important areas to assure that the goals of general education are being met. The results of these assessment activities will help inform decisions made at several levels, including the academic departments as they design their curricula and the General Education Committee as it reviews the College's general education curriculum.

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 is now requiring each academic department to devise assessment strategies for their discipline. The College's assessment committee, with representatives from each academic division, invites guest speakers on assessment to the campus and acts as a resource of assessment information. This committee is currently reviewing the College's assessment plan for student learning and, through its liaison with the strategic planning committee, helps inform planning processes for the College. With these efforts underway, assessment activities will achieve even greater prominence at St. Mary's College of Maryland.

MHEC Staff Review of 2004 Student Learning Outcomes Assessment Report

St. Mary's College of Maryland is currently reviewing its assessment plan for student learning.

St. Mary's has defined all general education competencies identified by Middle States, except technological competency and information literacy, which the College does not consider goals of the general education curriculum. General education competencies are assessed at the course level using course grades. Direct assessment takes place using capstone senior projects and portfolio sorting (a technique devised and first implemented at St. Mary's, where it is currently under examination).

At the institutional level, the NSSE, senior exit surveys and alumni surveys are also used as indirect methods of assessment.

Alumni survey results, as they pertained to general education competencies, were presented. Although the report stated that assessment results were used to review St. Mary's general education program, examples were not provided.

Appendix

EXAMPLES OF MEASUREMENT OF STUDENT LEARNING OUTCOMES --COMPETENCIES RELATED TO GENERAL EDUCATION—

Direct Measures . Those that provide clear and compelling evidence of what students are learning.

- Course-embedded assessments, including written work and presentations scored using a rubric.
- Scores on locally designed tests and competency exams accompanied by test "blueprints" describing what is being assessed.
- Score gains between entry and exit on tests, competency exams and writing samples.
- Ratings of student skills in the context of class activities, projects and discussions.
- Portfolios of student work.
- Scores on nationally-normed instruments, notably CAAP (ACT), Academic Profile (ETS), and Tasks in Critical Thinking.

Indirect Measures . Those that provide signs that students are probably learning, but it is less clear exactly what they are learning.

- Grades on assignments in general education courses not accompanied by a rubric or scoring guide.
- Student grades or passing rates in general education courses.
- Student evaluations and ratings of the knowledge and skills they have gained in general education courses.
- Student or graduate satisfaction with their learning in general education competencies, collected through surveys, exit interviews or focus groups.
- Results of nationally-normed surveys, notably CSXQ Survey (Indiana University), College Student Survey (HERI), CSEQ (Indiana University), and NSSE (Indiana University).