

# Student Learning Outcomes Plan

## Table of Contents

Introduction .....	1
Student Learning Outcomes Plan Guiding Principles .....	2
Student Learning Outcomes Plan 2008-2009 Initiatives .....	3
Evaluation of Student Learning Outcomes Assessment .....	3
2008-2009 Assessment Calendar .....	4
Distinguishing between Success Outcomes and Student Learning Outcomes .....	6
Leading Questions for Developing Learning Outcomes .....	7
Rubric to Assess Student Learning Outcome Statements .....	8
Documenting Assessments with PAFS and CAFS .....	10
Instructions for Completing PAFS and CAFS .....	10
Examples of Direct and Indirect Measures of Student Learning ..	13
Integration of Student Learning Outcomes Assessment at Brookdale .....	16
Core Competencies .....	17
Curriculum Mapping .....	18
Instructions for Completing Curriculum Maps .....	20
Syllabus Template .....	21
Syllabus Instructions .....	22
Support for Student Learning Outcomes Assessment .....	28
Additional Resources .....	29
Assessment Glossary .....	30

### **Appendices**

Appendix A: Family Educational Rights and Privacy Act of 1974 (FERPA)

Appendix B: Bloom's Taxonomy Reference

Appendix C: General Education Requirements by Degree

---

---

**Sustaining a Culture of Assessment**

---

---

# Student Learning Outcomes Plan

The Student Learning Outcomes Plan is a component of the Institutional Effectiveness Plan. It answers the question, “**How do we know what students are learning, and how well are they learning it?**” This document provides faculty with guidance regarding the assessment of student learning outcomes and frames the integrative process at institutional, program and course levels.

## INSTITUTIONAL LEVEL OF ASSESSMENT

Student learning outcomes are assessed at the institutional level through the College Core Competencies, a group of nine learning outcomes that reflect the skills and abilities that each student is expected to demonstrate upon graduation. Each program has identified how each of the Core Competencies is met by indicating which course(s) in the program demonstrate mastery of a Core Competency. All syllabi connect course learning outcomes to the Core Competencies.

## PROGRAM LEVEL OF ASSESSMENT

At the program level, student learning outcomes are identified for each program in the College Catalog and reflect the College Core Competencies. Program Student Learning Outcomes are assessed through a number of strategies including capstone courses, licensing examinations and portfolio evaluation.

## COURSE LEVEL OF ASSESSMENT

Finally, student learning outcomes are assessed at the course level. Every course in the Brookdale Catalog has written course learning outcomes that are published in the course syllabi. Numerous assessment approaches that include examinations, term papers, and class participation ensure a comprehensive assessment of course learning outcomes.

The Student Learning Outcomes Plan provides faculty with choice and flexibility in the assessment process. Each spring the Student Learning Outcomes Plan is reviewed and revised. The Executive Vice President, the Dean of Academic Affairs, and the Academic Division Deans review the previous year’s assessment efforts and a theme for the coming year is developed.

A number of goals are then written and shared with faculty during September faculty days. This approach ensures that assessment is strategic and continues to mature. Support for this annual process is provided by the Dean of Academic Affairs and the Administrator of Assessment. The Academic Affairs Office also maintains a web site containing resources and tools on student learning outcomes assessment. (<http://www.brookdalecc.edu/pages/388.asp>).

# Student Learning Outcomes Plan

## Guiding Principles

---

---

The purpose of academic assessment is to improve student learning.

---

---

1. Faculty are the content experts.
2. The responsibility for learning is shared by the faculty and the student.
3. Assessment processes involve all faculty and responsibility is shared by all faculty teaching in the department/discipline.
4. The Plan makes wise use of faculty and staff time.
5. Assessment is directly and inseparably linked to teaching and learning.
6. Assessment focuses on learning outcomes that are clearly articulated and linked institutionally, programmatically and to courses.
7. Results are used to improve student learning.
8. Sufficient resources are devoted to meaningful assessment activities.
9. Assessment findings, modifications and results will be communicated to the campus community.
10. Assessment of student learning is a mean to faculty growth and development.

---

---

Assessment focuses on learning outcomes that are clearly articulated and linked.

---

---

# Student Learning Outcomes Plan 2008-2009 Initiatives

## FOR EACH DIVISION

1. Review/ Revise Course and Program Learning Outcomes.
2. New programs will be at Level 2.
3. Existing programs progress to the next level.
4. In disciplines without a program, progress to the next level with courses.

- 
- 
- ✓ **Review**
  - ✓ **Revise**
  - ✓ **Progress**
- 
- 

## Evaluation of Student Learning Outcomes Assessment

The cycle of assessment will continue so that the College community is engaged in an ongoing process of assessment. Assessment activities will be shared through written and oral reports and should lead to campus wide discussions on teaching and learning, mission and institutional effectiveness. The process itself will be critiqued and modified annually.

Assessment activities will be included in departmental goals and will be reported as part of the mid-year report. Outcomes of the assessment activities will be reported in departmental annual reports.

# 2008-2009 Assessment Calendar

## **JULY 1 - AUGUST 15**

Each Academic Division Dean meets with the Dean of Academic Affairs and the Administrator of Assessment to identify student learning assessment projects for the 08-09 academic year.

## **SEPTEMBER 15**

Each Academic Division Dean finalizes assessment project plans for the 08-09 academic year and submits plan to the Dean of Academic Affairs.

## **DECEMBER 20**

Complete all Fall term data collection for 08-09 assessment projects.

## **JANUARY 6 - 20 (Faculty Day)**

Complete Fall term data analysis and review of assessment status for departmental plan mid-year report.

## **FEBRUARY 1 - 14**

Academic Division Deans meet with Dean of Academic Affairs to review mid-year report.

## **MAY 12**

Complete all Spring term data collection for 08-09 assessment projects.

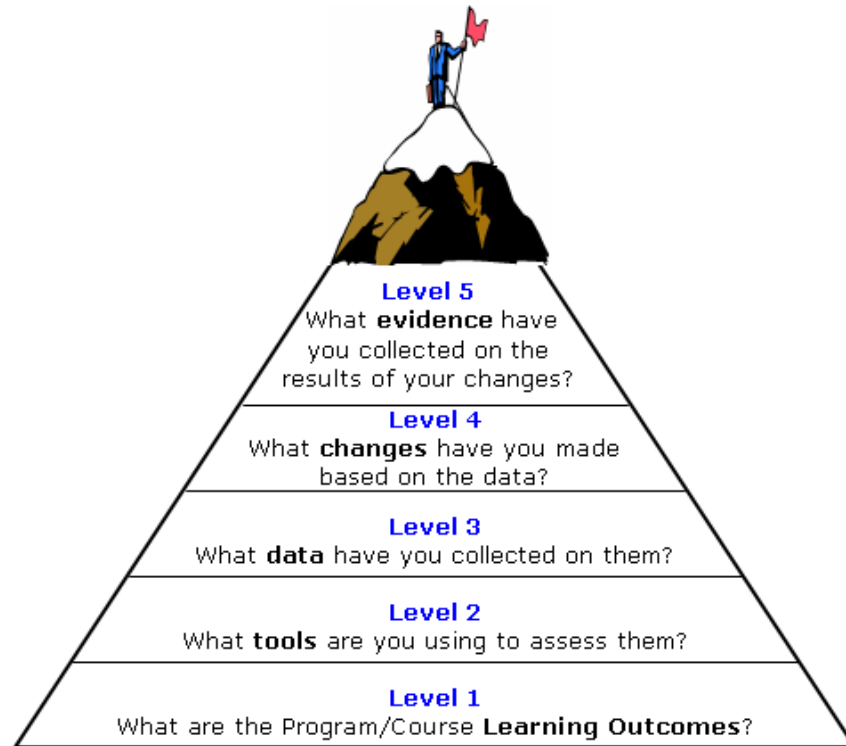
## **MAY 13 - 30**

Complete Spring term data analysis and review of assessment status for departmental plan mid-year report.

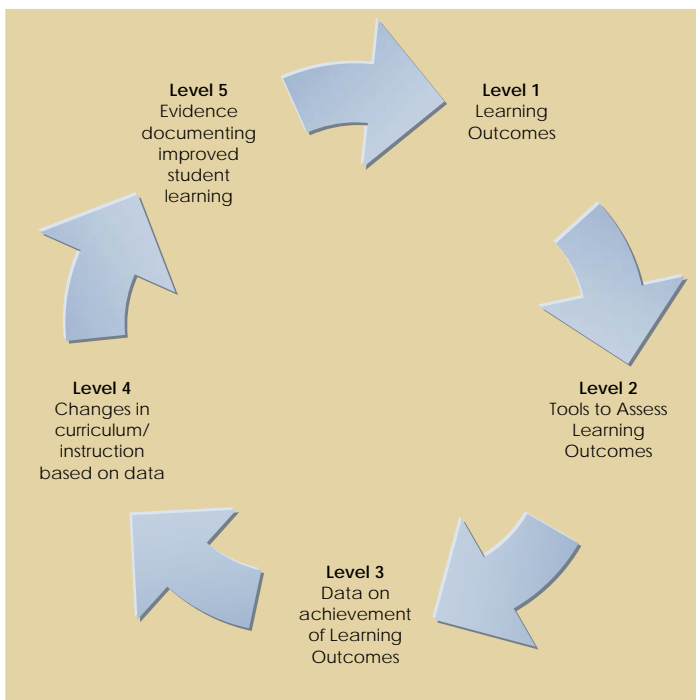
## **MAY 30**

Academic Division Deans submit completed 08-09 assessment projects on PAFS and CAFS to the Dean of Academic Affairs.

# Hierarchy of Student Learning Outcomes Assessment



## The Assessment Cycle



---

---

Progression from one level to the next leads to a cycle of continuous improvement in student learning.

---

---

# Distinguishing between Success Outcomes and Student Learning Outcomes

There are two types of outcomes; student learning outcomes and student success outcomes. Outcomes can reflect on the acquisition of knowledge and skills or student achievement of a goal other than learning such as course completion or graduation.

## Student Learning Outcomes

Outcomes that evaluate the students' knowledge and skills are termed learning outcomes. All courses and all programs must have clear, measurable learning outcomes that reflect the skills and abilities that students should have acquired by the end of the course or the program.

Examples of learning outcomes include:

- ◆ Give a speech that is designed to convince the audience of a specified point of view.
- ◆ Write a paper with clarity, relevance, accuracy and coherence on your future goals.
- ◆ Critically evaluate a research study using a defined systematic approach.

## Success Outcomes

Outcomes that reflect on the success of students include such concepts as retention, persistence, time to degree or satisfaction.

Examples of success outcomes include:

- ◆ 80% of the students in MATH 131 will complete the course.
- ◆ 75% of first-time, full-time Broadcasting majors will return in the program the following fall.
- ◆ 20% of the Automotive Technology AAS majors will graduate in three years.

Academic assessment is focused on assessing student learning and describes what we want students to learn. Clearly defined learning outcomes identify what students should be able to do with the content and drive the selection of learning activities as well as assessment tools.

# Leading Questions for Developing Learning Outcomes

## Questions for Faculty:

- ◆ In general, what are the most important things a student gains from your field of study?
- ◆ What qualities and capabilities do you strive to foster in your students?
- ◆ What is the most important knowledge that your students acquire from your field of study or from working with you?
- ◆ How does your field of study or your work change the way students view themselves?
- ◆ In what ways does your field of study or what you do contribute to a student's well-being?
- ◆ How does your field of study or what you do change the way a student looks at the world?
- ◆ What does your field of study or what do you contribute to the well-being of society at large?
- ◆ How do people in this area of study differ from those in other areas (knowledge, skills and/or values)?
- ◆ How do we know the extent to which students are learning what we hope from our field of study?
- ◆ How do we use information about student learning and development to enhance student learning?

## Questions for Students:

- ◆ What is the most important knowledge you have gained from taking courses, minoring, or majoring in this subject?
- ◆ What are the most valuable skills or abilities that you have developed as a result of taking courses, minoring, or majoring in this subject?
- ◆ How has taking courses, minoring, or majoring in this subject changed the way you look at yourself?
- ◆ How has taking courses, minoring, or majoring in this subject changed the way you look at the world?
- ◆ How has taking courses, minoring, or majoring in this subject changed the way you think about the future?
- ◆ How do you know whether these changes have occurred?
- ◆ How do people in this area of study differ from those in other areas (knowledge, skills, and/or values)?
- ◆ What changes might be made in courses and programs of your major or minor to enhance student learning?

Based on leading questions developed by Prof. C. Ewarat, Department of Psychology, Syracuse University, 1998.  
Reproduced with permission.

# Rubric to Assess Student Learning Outcome Statements\*

## Learning Outcome Statement

***“Students will be able to...***

---



---



---

	1- Absent	2-Inadequate	3-Adequate	4-Well Developed	
<b>Student Learning Outcome Statement</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>Suggestions</b>
Is a <b>learner-oriented</b> essential ability or skill needed by the student to fulfill the outcomes of the course/program/degree					
Identifies what a student is able to <b>do</b> with the content					
Begins with an action verb					
Stresses the highest order of thinking skills (Applying, Analyzing, Evaluating, Creating)					
Is measurable					
Is sufficiently explicit for all stakeholders to have a common understanding of their meaning					
Is consistent with standards, practice and real world expectations for performance					

\* Adapted from Rubric developed by Brookdale Buddies 2004

# 2008-2009 PAFS Template

## Brookdale's Program Assessment Flow Sheet (PAFS) DUE TO ACADEMIC AFFAIRS BY MAY 30, 2009.

Program: [\[Program, Program Option or Certificate as listed in the catalog\]](#) 2008-2009 Catalog Page: # [\[ \]](#) Name: [\[Person\(s\) completing forms/assessments\]](#)

BCC Vision, Values, Mission and Goals: [\[Most relevant to program\]](#)

Program Mission: [\[Enter your program mission here.\]](#)

Program Learning Outcomes (as they appear in the catalog)  (Each program should have between 4 and 6 program learning outcome statements)	Assessment Tools  What tools are you using to assess achievement of these learning outcomes? e.g., standardized tests, capstone course, portfolio, projects, course evaluations, etc.	Summary of Data Collected and Analyzed  What data have you collected and analyzed regarding achievement of these learning outcomes? Data collected is summarized and shared with those responsible for implementing change. Include the period of time that the data was collected. Indicate what the data tells you about student learning. Be as specific as possible.	Change Based on Data  What changes have you made to the curriculum or instruction?	Post-Change Evidence  How did the changes impact the achievement of the learning outcome(s)?
LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5
Outcome #1				
Outcome #2				
Outcome #3				
Outcome #4				
Outcome #5				
Outcome #6				

# Documenting Assessments with PAFS and CAFS

## WHAT ARE PAFS AND CAFS?

A **PAFS** is a “Program Assessment Flow Sheet”. A **CAFS** is a “Course Assessment Flow Sheet”. PAFS and CAFS are documents that use a table format to summarize a program or course assessment as it progresses through the “five levels”.

### **NOTE:**

- ◆ Departments do not need to assess every outcome every year.
- ◆ Departments can assess an outcome for several years to get aggregated, trended data.

The document templates are available for download from the Academic Affairs Assessment web site: <http://www.brookdalecc.edu/pages/388.asp>.

## Instructions for Completing PAFS and CAFS

### Identifying Information

At the top of the document, there is an area for entering the following information about the assessment:

- ◆ Title of program or course
- ◆ College Catalog Page Number – for reference (PAFS only)
- ◆ Names of the individuals who completed the assessment
- ◆ Connection to the Brookdale Vision, Values, Mission, and Goals (PAFS only)
- ◆ Program Mission (PAFS only)

# 2008-2009 CAFS Template

Brookdale's Course Assessment Flow Sheet (CAFS)  
**DUE TO ACADEMIC AFFAIRS BY MAY 30, 2009.**

Course Number:  Course Title:  Name: [Person\(s\) completing forms/assessments](#)

Course Learning Outcomes (as they are stated in the syllabus)	Assessment Tools	Summary of Data Collected and Analyzed	Change Based on Data	Post-Change Evidence
<b>LEVEL 1</b>	<b>LEVEL 2</b>	<b>LEVEL 3</b>	<b>LEVEL 4</b>	<b>LEVEL 5</b>
Outcome #1				
Outcome #2				
Outcome #3				
Outcome #4				
Outcome #5				
Outcome #6				

## **Summary of Assessment**

The next section of the document contains a table where specific information about the assessment is entered. The columns represent each of the five levels of the assessment process. The rows represent each student learning outcome.

### **LEVEL 1: What do you want students to learn?**

#### **Learning Outcomes:**

Learning outcomes are clearly articulated statements that indicate what the student is able to do with the content upon completion of the program or course. Program Learning Outcomes (PLOs) are articulated in the course catalog. Course Learning Outcomes (CLOs) are articulated in the course syllabus.

### **LEVEL 2: What tools are you using to assess achievement of these learning outcomes?**

#### **Assessment Tools:**

The primary tools are direct measures of student learning, e.g., standardized tests, exams, portfolios, written assignments, etc. Indirect measures (e.g., course evaluations, student surveys, completion rates, etc.) are used to support direct measures.

The next page contains additional examples of direct and indirect measures of student learning at the institutional, program, and course levels.

## Examples of Direct and Indirect Measures of Student Learning

	Direct Measures	Indirect Measures
<b>Course</b>	<ul style="list-style-type: none"> <li>❖ Course and homework assignments</li> <li>❖ Examination and Quizzes</li> <li>❖ Standardized tests</li> <li>❖ Term papers and reports</li> <li>❖ Observations of field work, internship performance, service learning, or clinical experiences</li> <li>❖ Research projects</li> <li>❖ Class discussion participation</li> <li>❖ Case study analysis</li> <li>❖ Rubric (a criterion-based rating scale) scores for writing, oral presentations, and performances</li> <li>❖ Artistic performances and products</li> <li>❖ Grades that are based on explicit criteria related to clear learning goals</li> </ul>	<ul style="list-style-type: none"> <li>❖ Course evaluations</li> <li>❖ Test blueprints (outlines of the concepts and skills covered on tests)</li> <li>❖ Percent of class time spent in active learning</li> <li>❖ Number of student hours spent on service learning</li> <li>❖ Number of student hours spent on homework</li> <li>❖ Number of student hours spent at intellectual or cultural activities related to the course</li> <li>❖ Grades that are based on explicit criteria related to clear learning goals</li> </ul>
<b>Program</b>	<ul style="list-style-type: none"> <li>❖ Capstone projects, senior theses, exhibits, or performance</li> <li>❖ Pass rates or scores on licensure, certification, or subject area tests</li> <li>❖ Student publications or conference presentations</li> <li>❖ Employer and internship supervisor ratings of students' performance</li> </ul>	<ul style="list-style-type: none"> <li>❖ Focus groups interviews with students, faculty members, or employers</li> <li>❖ Registration or course enrollment information</li> <li>❖ Department or program review data</li> <li>❖ Job placement</li> <li>❖ Employer or alumni surveys</li> <li>❖ Student perception surveys</li> <li>❖ Proportion of upper-level courses compared to the same program at other institutions</li> <li>❖ Graduate school placement test</li> </ul>
<b>Institutional</b>	<ul style="list-style-type: none"> <li>❖ Performance on tests of writing, critical thinking, or general knowledge</li> <li>❖ Rubric scores for class assignments in General Education, interdisciplinary core courses, or other courses required of all students</li> <li>❖ Performance on achievement tests</li> <li>❖ Self-reflections on what students have learned related to institutional programs such as service learning (e.g., asking students to name the three most important things they have learned...)</li> </ul>	<ul style="list-style-type: none"> <li>❖ Locally-developed, commercial, or national surveys of student perceptions or self-report of activities (e.g., National Survey of Student Engagement)</li> <li>❖ Transcript studies that examine patterns and trends of course selection and grading</li> <li>❖ Annual reports including institutional benchmarks, such as graduation and retention rates, grade point averages of graduates, etc.</li> </ul>

Middle States Commission on Higher Education. (2007). *Student Learning Assessment: Options and Resources*. (2nd ed.).

### **LEVEL 3: What data have you collected regarding achievement of these learning outcomes?**

#### **Summary of Data:**

Data collected is summarized and shared with those responsible for implementing change. For the data to be useful, specific information should be included such as:

- ◆ **Who?**  
Which students did you collect data from? Was the data from all students in the course or program or from a sampling of students? If a partial sample was collected, how many students were there? Was the sample varied to best represent the total population (e.g., day and evening sections, full-time and adjunct faculty, etc.)?
- ◆ **What?**  
What data was collected? How was it analyzed? What were you looking for to determine student achievement of skills and abilities? Were there specific questions on an exam? Was a rubric developed?
- ◆ **When?**  
During which term or part of the term was the data collected? Was there a pre-test and post-test? Did the data collection take place during the term (formative) or at the end (summative)?
- ◆ **What were the findings?**  
To what degree are students able to demonstrate achievement of the specified learning outcome(s)?
- ◆ **What does it mean?**  
What did you learn from analyzing the data? Would you like to see improvement in a particular skill area? Was student performance consistent across multiple section offerings and locations? Were students performing better with one skill or ability over another?

---

---

**What do the data tell you about student learning?**

---

---

## **LEVEL 4: What changes have you made to the curriculum or instruction?**

### **Changes or Recommendations Based on Data**

What changes in instructional strategies/approaches have occurred as a result of the information collected? What recommendations do you have based on your findings? Do you intend to collect additional data at a future time to support your initial findings?

## **LEVEL 5: How did the changes impact the achievement of the learning outcome(s)?**

### **Evidence**

After initial assessment is complete and modifications have been made, conduct a follow-up study to reassess outcomes. Report on the impact to student learning.

### **Considerations for Completing PAFS and CAFS**

- ◇ **Always omit identifying student information when collecting, analyzing, and reporting on data.** This includes students' names, social security numbers, Colleague/Student IDs, and student contact information.

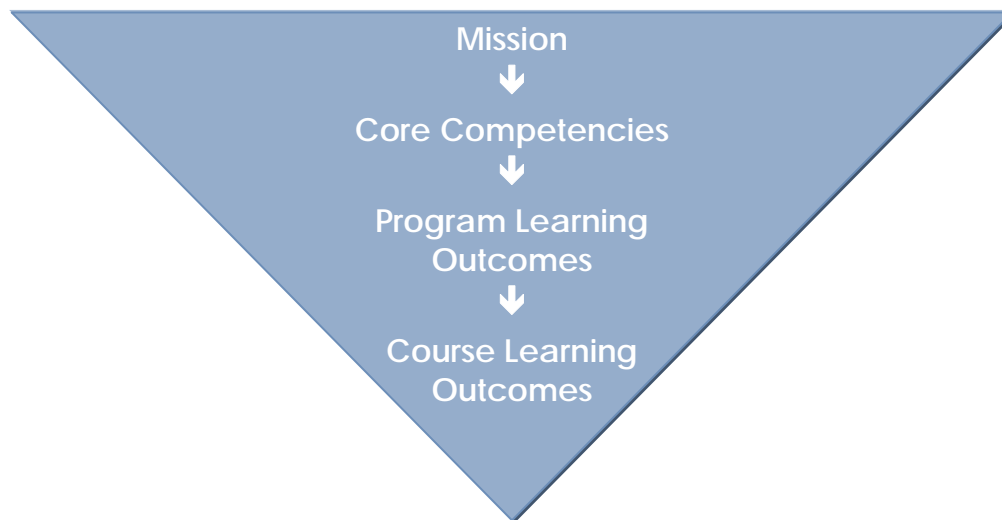
More information on College policies pertaining to student privacy are provided in the appendices.

- ◇ **Collected samples of student work in a course or program should be representative of the total population.** When possible, it is best to have samples from multiple instructors, day and time offerings, locations, and delivery modes (e.g., face-to-face, online, ITV, computer-integrated classes, etc.)
- ◇ **Use the same measurement tool for both the pre- and post-change collection of data to ensure valid comparisons.** For example, if an internship evaluation is used in Level 3 to measure a learning outcome, then the same internship evaluation tool should be used in Level 5 to compare results on student achievement before and after changes to instruction were made.
- ◇ **Be consistent in how learning outcomes are evaluated**—across multiple sections and instructors.

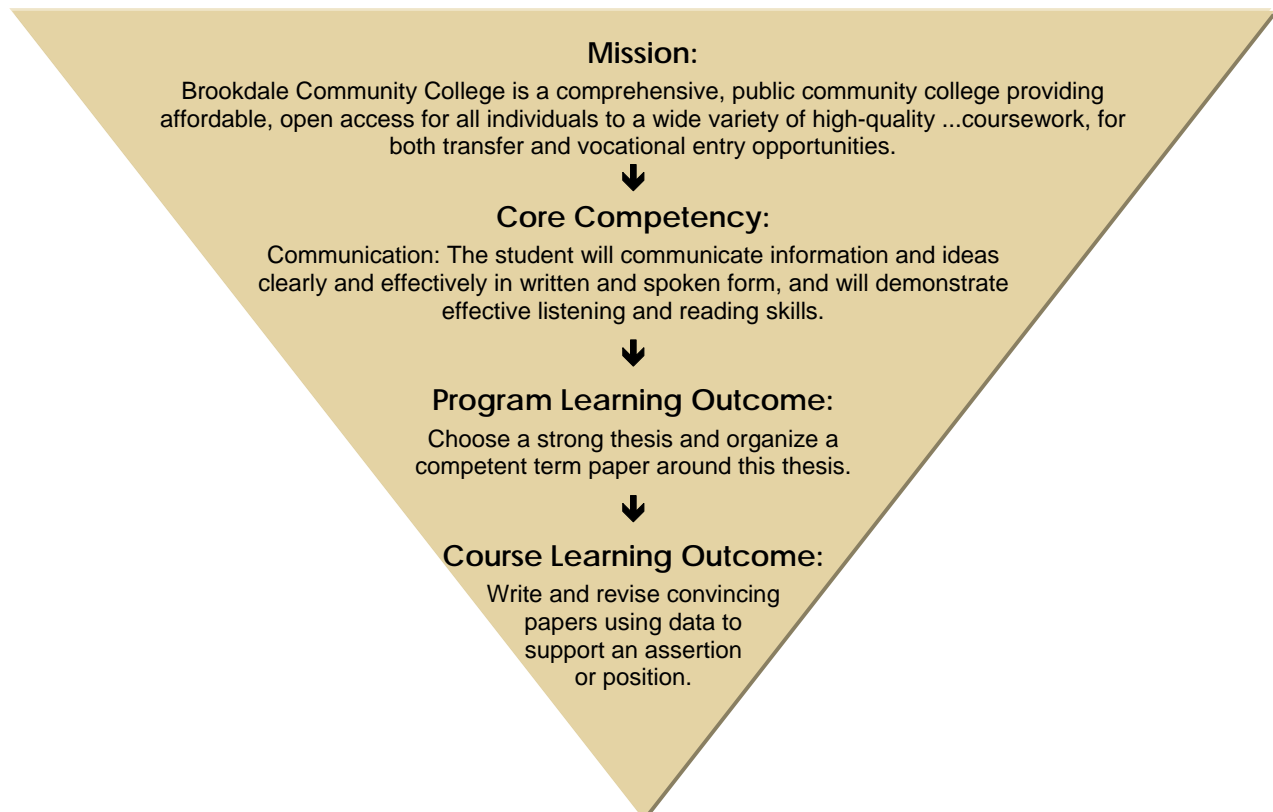
# Integration of Student Learning Outcomes Assessment at Brookdale

## Guiding Principle for Integration of Student Learning

“Organized, systematized, and sustained assessment processes are ongoing, not once-and-done. There should be clear interrelationships among institutional goals, program- and unit-level goals, and course-level goals” Middle States. (2005). *Assessing Student Learning and Institutional Effectiveness*. p. 5.



## Example using the Humanities Program A.A. English Option and ENGL 122



## Core Competencies\*

The following core competencies represent the essential elements of a complete and relevant education at Brookdale Community College. They are the skills and abilities that graduates of all associate degree programs should acquire. They are the abilities necessary to be effective as a person, a worker, a citizen, and a life-long learner.

### **Communication**

The student will communicate information and ideas clearly and effectively in the written and spoken form, and will demonstrate effective listening and reading skills.

### **Mathematical/Scientific Reasoning**

The student will use mathematical and/or scientific skills and methods to organize information and develop and test conjectures. The student will also analyze and solve problems and interpret the results within the context of practical applications.

### **Critical Thinking**

The student will think clearly, critically and creatively to analyze information, identify solutions, make logical decisions and solve problems.

### **Creative Expression**

The student will use visual, verbal or written methods of communication to articulate a response to the arts and /or humanities.

### **Information Literacy**

The student will identify a need for information and collect, analyze, organize and evaluate information from a variety of sources. The student will synthesize, document and present information.

### **Technological Literacy**

The student will use computer systems and other appropriate forms of technology to achieve professional, educational, and personal objectives.

### **Historical/Societal Analysis**

The student will identify and analyze historical and/or societal issues as they impact current and future trends.

### **Community and Workplace**

The student will demonstrate cultural sensitivity within the context of the contemporary, diverse, global community. The student will demonstrate ethical conduct and effective teamwork.

### **Personal Development**

The student will use the biological, psychological and social dimensions of health and wellness to improve and maintain physical and emotional well-being. The student will demonstrate personal, time and stress management skills.

\*Approved at the September 16, 2003 Governance Forum

## Curriculum Mapping

Through further engagement in curriculum mapping, faculty will determine whether all Brookdale graduates have adequate opportunities to achieve all core competencies and program/course learning outcomes. Through this process, the following question on student learning can be explored:

**“The core competencies represent the essential elements of a complete and relevant education at Brookdale Community College.”** Brookdale Community College Catalog (2007) p.54.

Curriculum Mapping is a process for showing curriculum-integration at the institutional, program, and course levels and identifies where students in a program or course achieve learning outcomes and core competencies.

Three types of curriculum maps have been developed that illustrate the connections of:

1. Core Competency-to-Course
2. Core Competency-to-Program
3. Program Learning Outcome-to-Course

Full-size images of the maps follow. The complete 2007-2008 curriculum maps are available for download from the Academic Affairs Assessment web site: <http://www.brookdalecc.edu/pages/388.asp>.

Instructions for completing curriculum maps are provided in the next section.

# Core Competency-to-Course Curriculum Map

Course Code	Communication	Math/Sci Reasoning	Critical Thinking	Creative Expression	Information Literacy	Technological Literacy	Historical Societal Analysis	Community & Workplace	Personal Development
ACCT 101			X			X			
ACCT 102		X	X			X			
ACCT 105			X			X			
ACCT 112		X	X						
ACCT 115			X						
ACCT 203			X						
ACCT 204		X	X						
AMSL 101	X		X					X	
AMSL 102	X		X					X	
ANTH 105	X		X		X	X	X	X	
ANTH 106	X		X		X	X	X		
ANTH 115			X				X	X	
ANTH 205			X				X	X	
ANTH 216	X		X		X	X	X		
ARAB 101			X					X	
ARAB 102			X					X	
ARCH 121			X	X			X		
ARCH 131	X		X	X	X				
ARCH 132	X		X	X	X				
ARCH 151	X		X		X				
ARCH 152	X		X		X				
ARCH 225		X	X						
ARCH 235				X		X			
ARCH 245			X		X		X		
ARCH 246			X		X		X		
ARCH 247			X		X		X		
ARCH 261	X		X	X	X			X	
ARCH 262	X		X	X	X			X	
ARTC 141				X					

# Instructions for Completing Curriculum Maps

## Map 1: Core Competency-to-Course Curriculum Map

1. For each course, refer to the course learning outcomes section of the course syllabus to identify which core competencies are significantly addressed and assessed in the course curriculum.
2. Designate where a core competency has been identified with an “X” in the corresponding box.

### LOCATING AN EXISTING SYLLABUS

All copies of approved syllabi are located online through WebAdvisor’s “Search for Sections” (located in the student menu).

- ◆ In WebAdvisor, perform a Search for Sections
- ◆ Enter the name of the course for the corresponding syllabus.
- ◆ Click on a section of the course.
- ◆ Select [View Syllabus](#).

### OBTAINING THE SYLLABUS TEMPLATE

The Syllabus template is located on the next page.

The instructions are located in the appendices and are also available for download through the Academic Affairs web site:

<http://www.brookdalecc.edu/pages/393.asp>.

# SYLLABUS

---

**Code:**

**Title:**

**Division:**

**Department:**

**Course Description:**

**Prerequisites:**

**Prerequisites or Corequisites:**

**Corequisites:**

**Credits:**

**Lecture Credits:**

**Lab/Studio Credits:**

**Lab/Studio Hours:**

---

**REQUIRED MATERIALS:**

**ADDITIONAL TIME REQUIREMENTS:**

(Identify open lab or other lab requirements)

**COURSE LEARNING OUTCOMES:**

Upon completion of this course, students will be able to:

- Bullet course learning outcomes
- Also identify which, if any, core competencies are met by each course learning outcome.

**UNIT LEARNING OUTCOME:**

e.g. apply, analyze, evaluate, create, etc.

(Supplemental unit information such as topics could follow the unit outcome statement.)

**GRADING STANDARD:**

**DEPARTMENT POLICIES:**

**COLLEGE POLICIES:**

For information regarding:

- ◆ Brookdale's Academic Integrity Code
- ◆ Student Conduct Code
- ◆ Student Grade Appeal Process

Please refer to the **STUDENT HANDBOOK AND BCC CATALOG.**

**NOTIFICATION FOR STUDENTS WITH DISABILITIES:**

Brookdale Community College offers reasonable accommodations and/or services to persons with disabilities. Students with disabilities who wish to self-identify must contact the Disabilities Services Office at 732-224-2730 (voice) or 732-842-4211 (TTY) to provide appropriate documentation of the disability, and request specific accommodations or services. If a student qualifies, reasonable accommodations and/or services, which are appropriate for the college level and are recommended in the documentation, can be approved.

**ADDITIONAL SUPPORT/LABS:**

## Syllabus Instructions For Syllabus Template

Purpose: The Syllabus Glossary describes the information to be included on the course syllabus template.

**CODE:, TITLE:** - as listed in the catalog

**DIVISION:, DEPARTMENT:** – identify the division and department that offers that course.

**COURSE DESCRIPTION:** – as listed in the catalog. Details of what a course description should contain is listed in the Curriculum Handbook.

**PREREQUISITES:** - List any prerequisites for the course. Prerequisites are stated at the end of the course description in the catalog.

**COREQUISITES:** - List any corequisites for the course. Corequisites are stated at the end of the course description in the catalog.

**CREDITS:** – total number of college credits approved

**LECTURE CREDITS:** – number of credits earned from lecture component of class

**LAB/STUDIO CREDITS:** – number of credits earned from lab or studio portion of the class if applicable to course.

A scheduled lab/studio is defined as a time when a course-specific learning activity is assigned, attendance is monitored and instruction is available.

**LAB/STUDIO HOURS:** – number of required lab hours per week if applicable to course.

The minimum time for 1 credit of scheduled lab/studio is 30 hours per semester. The maximum time for 1 credit of scheduled lab/studio should be 45 hours per semester.

**CLINICAL/FIELD/WORK EXPERIENCE:** - number of required hours per week if applicable to the course.

The minimum time for 1 credit of clinical/field/work experience should be 45 hours per semester. The maximum time for 1 credit of clinical/field/work experience should be 75 hours, except where mandated by external (licensing) agencies, or transfer agreements.

**REQUIRED MATERIALS:** – text books, periodicals, and equipment students will be required to have to complete the course.

**ADDITIONAL TIME REQUIREMENTS:** - open lab or other activities that the student is expected to do or attend on their own (outside of homework).

**COURSE LEARNING OUTCOMES:** - clearly articulated statements of what students will be able to do after completing the course, could be the demonstration of skills or behaviors learned in the course. Bloom's Taxonomy may be helpful with the wording. Indicate in parentheses any of the core competencies that are met and assessed by each course learning outcome. For example English 122 might write:

**“Students will:**

- **Use writing and research skills to explore ideas and solve problems (Communication).**
- **Write and revise convincing papers using data to support an assertion or position (Critical Thinking and Information Literacy).”**

**UNIT LEARNING OUTCOME:**– articulated statement of what students will be able to do or know after the completion of the unit. It could be the demonstration of skills or behaviors learned in the unit.

**GRADING STANDARDS:** - Inform students of the grading system on the first day of class. Do not list the detail point value of each test, paper, attendance component, etc., if all faculty do not use the same method. In the case where grading policies vary, provide the specific section requirements and assessment weightings in an instructor addendum.

**DEPARTMENT POLICIES:** - Policies required by the department may include safety procedures, laboratory rules, cheating policies, etc.

**COLLEGE POLICIES:** - Use the following statement on the template:  
For information regarding:

- ◆ Brookdale's Academic Integrity Code
- ◆ Student Conduct Code
- ◆ Student Grade Appeal Process

Please refer to the **STUDENT HANDBOOK AND BCC CATALOG.**

Notification for Students with Disabilities: - Use the following statement on the template:

**NOTIFICATION FOR STUDENTS WITH DISABILITIES:**

Brookdale Community College offers reasonable accommodations and/or services to persons with disabilities. Students with disabilities who wish to self-identify must contact the Disabilities Services Office at 732-224-2730 (voice) or 732-842-4211 (TTY) to provide appropriate documentation of the disability, and request specific accommodations or services. If a student qualifies, reasonable

accommodations and/or services, which are appropriate for the college level and are recommended in the documentation, can be approved.

**ADDITIONAL SUPPORT/LABS:** - Identify where students will be able to obtain instructor addendum, Learning Assistant location, hours, phone number, email. Identify lab location, hours, phone number if applicable. Identify department secretary office location, hours and phone number when applicable. List support materials and their location. If this includes library materials, appropriate librarian should be consulted.

Instructor addendum will contain specific information about specific class schedule and assignments, instructor information, grading policy, etc. See Faculty Handbook (<http://www.brookdalecc.edu/pages/163.asp>).

# Core Competency-to-Program Curriculum Map

Programs of Study	Communication	Math/Sci Reasoning	Critical Thinking	Creative Expression	Information Literacy	Technological Literacy	Historical/Social Analysis	Community & Workplace	Personal Development
Business Administration Program A.A. Degree	BUSI105, BUSI205, ECON105, ECON106, ENGL121, ENGL122, SPCH115	ACCT102, ACCT112, BUSI165, ECON105, ECON106, MRKT101	ACCT101, ACCT102, ACCT112, BUSI205, BUSI221, ECON105, ECON106, ENGL121, ENGL122	ENGL121	BUSI105, BUSI205, ECON105, ECON106	ACCT101, ACCT102, SPCH115	BUSI105, BUSI205, ECON105, ECON106, MRKT101	General Education Cultural and Global Awareness Requirement -- 3 credits	BUSI165
Early Childhood Education Program A.A.S. Degree	EDUC225, ENGL121, ENGL122, PSYC106, SOCI105, SPCH115	General Education Math/Science Requirement -- 3 credits	EDUC216, ENGL121, ENGL122	ENGL121, ENGL265	ENGL122, PSYC206	PSYC206, SPCH115	EDEC105, EDUC225, SOCI105	SOCI105	PSYC206, SOCI105
Health Information Technology Program A.A.S. Degree	ENGL121, ENGL122, ENGL235, HESC105, HITEC221, HITEC222, SPCH115	BIOL111, BIOL112, HESC105, HITEC121, HITEC124, HITEC221, HITEC224, HITEC206, PSYC106	ENGL121, ENGL122, ENGL235, HESC105, HITEC121, HITEC122, HITEC123, HITEC124, HITEC221, HITEC223, HITEC224, HITEC206, PSYC106	ENGL121, ENGL235	ENGL122, ENGL235, HITEC121, HITEC123, HITEC222, HITEC223, HITEC224	BITEC116, HITEC221, HITEC222, HITEC223, HITEC224	ENGL235	ENGL235, HITEC122	HESC105, HITEC121, HITEC122, HITEC221, HITEC224, PSYC106

## Map 2: Core Competency-to-Program Curriculum Map

1. For each program, refer to the following documents:
  - ◇ Core Competency-to-Course Curriculum Map
  - ◇ The College Catalog (Program Page and General Education Requirements Page)
2. Identify the required courses in the program.
3. Using the Core Competency-to-Course Curriculum Map, enter the required courses under the column headings where a core competency has been identified and assessed.
  - a. Do not enter “recommended” General Education courses as there is no assurance that all students will select those courses.
  - b. If courses are listed within a selection of required courses of which students have **choices** in how the requirement is satisfied, then all course choices in the selection must have the specified core competency present to be included in the curriculum map.
  - c. Core competency can be documented through required General Education or required career courses.

# Program Learning Outcome-to-Course Curriculum Map

Program Curriculum Mapping  
**Mathematics/Science Program A.S. Degree Biology Option (p.115)**

Program Learning Outcomes	BIOL 101	BIOL 102	CHEM 203	CHEM 204	BIOL 205	BIOL 206	BIOL 207	BIOL 213	BIOL 215
Identify and interpret basic biological concepts.	X	X	X	X	X	X	X	X	X
Employ the scientific method of inquiry to gather and use information for the express purposes of critical thinking, information analysis, and problem solving	X	X	X	X	X	X	X	X	X
Use appropriate technology.	X		X	X			X	X	X

 All students are required to take these courses.

### Map 3: Program Learning Outcome-to-Course Curriculum Map

1. For each program, refer to the program page of the College Catalog.
2. Identify all courses (recommended and required).
3. In the first column on the left, enter all program learning outcomes—one on each row exactly as they appear in the College Catalog.
4. Enter each course as column headings in the top row. **The columns for courses that all students in the program are required to take should be shaded and listed first from left to right.** Courses that are required, but within a selection of choices, should be placed next. All other courses should follow.
5. Designate where a program learning outcome is addressed and assessed through a course with an “X” in the corresponding box.

## Support for Student Learning Outcomes Assessment

The Dean of Academic Affairs and the Administrator of Assessment are responsible for assisting faculty as they complete their PAFS, CAFS, and Curriculum Maps. Their contact information is as follows:

#### Susan DeMatteo

Administrator-Assessment  
Academic Affairs  
MAC 106  
732-224-2638  
sdematteo@brookdalecc.edu

#### Nancy Kegelman

Dean of Academic Affairs  
MAC 106  
732-224-2221  
nkegelman@brookdalecc.edu

#### Arnold Gelfman

Executive Director  
Planning, Assessment & Research  
BAC 222  
732-224-2208  
agelfman@brookdalecc.edu

Academic Affairs Assessment Web Site

<http://www.brookdalecc.edu/pages/388.asp>

## Additional Resources

Anderson, L. W., & Krathwohl, D. R. (Eds.). (2001). *A taxonomy for learning, teaching and assessing: A revision of Bloom's Taxonomy of educational outcomes: Complete edition*, New York : Longman.

Huba, Mary E. and Freed, Jann E. (2000). *Learning-Centered Assessment on College Campuses: Shifting the Focus from Teaching to Learning*. Needham Heights, MA: Allyn & Bacon.

Middle States Commission on Higher Education. (2007). *Student Learning Assessment: Options and Resources*. (2nd ed.). Philadelphia, PA: Middle States Commission on Higher Education.

Suskie, Linda. (2004). *Assessing Student Learning: A Common Sense Guide*. Bolton, MA: Anker Publishing Company, Inc.

Wiggins, Grant and McTighe, Jay. (2005). *Understanding by Design*. Alexandria, VA: Association for Supervision and Curriculum Development.

Woolvard, Barbara E. and Anderson, Virginia J. (1998). *Effective Grading: A Tool for Learning and Assessment*. San Francisco, CA: Jossey-Bass.

# ASSESSMENT GLOSSARY

## **ASSESSMENT-INSTITUTIONAL**

A process used to determine the degree to which the institution is achieving its mission and goals.

## **ASSESSMENT OF STUDENT LEARNING**

A systematic process for gathering information about student learning. As a process, it has five levels:

1. Specify learning outcomes
2. Select assessment tools to measure student learning outcomes
3. Gather and evaluate data on student learning
4. Make and implement changes to the curriculum
5. Gather and evaluate data to determine if changes were effective

## **ASSESSMENT TOOLS**

The instruments used to collect data that provides evidence of student learning, can be direct or indirect evidence (e.g. writings, portfolios, projects, etc.).

## **BENCHMARKING**

A technique used to define an institutional, program, or course comparison group and to compare results on specified outcomes.

## **CORE COMPETENCIES**

Represent the essential elements of a complete and relevant education at Brookdale Community College. They are the skills and abilities that graduates of all associate degree programs should acquire. They are the abilities necessary to be effective as a person, a worker, a citizen, and a life-long learner.

## **COURSE LEARNING OUTCOME (CLO)**

Clearly articulated statement of what a student will know, value or be able to do at the successful completion of the course. CLOs are contained in each course syllabus and linked to relevant program learning outcomes and BCC Core Competencies.

## **CURRICULUM MAPPING**

A process for showing curriculum-integration at the program and course levels to determine whether all students in the program or course are getting sufficient opportunities to achieve all learning outcomes and core competencies.

## **CURRICULUM MAPS**

A group of three charts that illustrate the connections between:

1. Core Competency-to-Course
2. Core Competency-to-Program
3. Program Learning Outcome-to-Course

The maps illustrate the integration of institutional, program and course learning outcomes.

## **LEARNING ACTIVITIES**

Behaviors of faculty and students that contribute to learning outcomes.

## **METHODS OF ASSESSMENT**

Selected procedures for gathering evidence of student learning; how the assessment tool is used to collect data. These methods are selected in relation to the specified learning outcome to be assessed; the type of evidence of learning available; the type of performance to be observed and the agreed-upon scoring procedures. See examples of direct and indirect measures on page 13.

## **OUTCOME**

An end product that is consumer oriented and measurable.

## **PERFORMANCE INDICATOR**

A measurement of the outcome expressed in quantifiable terms using a piece of information about the performance of a student (e.g., a score on a test, a criteria-based internship rating, etc.). This is also referred to as a metric.

## **PORTFOLIO**

A systematic and organized collection of a student's work that exhibits to others the direct evidence of a student's efforts, achievements, and progress over a period of time.

## **PROGRAM LEARNING OUTCOME (PLO)**

Clearly articulated broad statement of what a graduate of a program will know and be able to do. PLOs are listed in the College catalog. Each program should have between four and six program learning outcome statements.

## **REPRESENTATIVE SAMPLE**

A sample which is representative of a total population selected by some process which gives all samples a proportional chance of appearing to represent variations in the total group. A representative student sample may include a collection of student work from varied course sections, instructors, schedule and location offerings, and instructional delivery methods (e.g., face-to-face, online, ITV, etc.).

## **RUBRIC**

A scoring guide that describes the criteria that will be used to score or grade an assignment and provides evidence that a student learning outcome has been met. This is also referred to as a criterion-based rating scale. See example on page 8.

## **STANDARDS**

A description of the expected level of student performance on specified learning outcomes (80% of the class will pass the final exam with a score of 70 or better).

## **STUDENT LEARNING OUTCOME**

A clearly articulated statement of what the student is able to do with the content upon completion of the course (give a speech that is designed to convince the audience of a specified point of view), or upon completion of the program (design and conduct a research study).

### Student Learning Outcome Statement –

- Is a learner-oriented essential ability or skill needed by the student to fulfill the outcomes of the course/program/degree.
- Identifies what a student is able to do with the content.
- Begins with an action verb.
- Stresses the highest order of thinking skills.  
(Applying, Analyzing, Evaluating, Creating)
- Is measurable.
- Is sufficiently explicit for all stakeholders to have a common understanding of their meaning.
- Is consistent with standards, practice and real world expectations for performance.

### SUCCESS OUTCOME

A clearly articulated statement, which includes a performance indicator, that reflects the extent to which the purposes of the course (80% of student art projects will receive an evaluation of satisfactory or higher from an independent jury) or the purposes of the program are met (70% of the students will complete the program).

### TYPES OF ASSESSMENT

#### ◇ DIRECT/INDIRECT --

**Direct methods** demonstrate that learning has occurred relating to a specific content area, skill, or ability. They provide evidence in the form of student products or performances.

**Indirect Methods** support findings from direct measures. They reveal characteristics associated with student learning, but only imply that learning has occurred. They may relate to student perceptions of learning, completion rates, graduation rates, etc.. Indirect Methods may also be used prior to direct methods to inform assessment planning and prioritization.

#### ◇ FORMATIVE/SUMMATIVE –

**Formative assessment** is the gathering of data on student learning during instruction. It helps the instructor to identify concepts or skills that students aren't learning well, and to take steps to improve student learning while the course is still in process.

**Summative Assessment** occurs at the end of instruction. The purposes are to determine whether or not overall goals have been achieved and to provide information or statistics about a course or program leading to an improvement of student learning.

- ◇ **HOLISTIC** - Making a judgment about a student's learning by using an overall appraisal of a student's entire performance, rather than by scoring or analyzing separate dimensions of the performance individually. Used in situations where the demonstration of learning is considered to be more than the sum of its parts, and so the complete final product or performance is evaluated as a whole. The instructor matches his or her overall impressions to pre-defined expectations for learning outcomes and makes a judgment.

## ◆ PERFORMANCE-BASED

Evidence of student achievement of the knowledge and skill components of a course is collected from students in the form of a performance or product. The process the student uses reveals as much about the student's understanding of the knowledge and ability to apply it as the final outcome. It is part of the teaching and learning process, a continuous interaction between instructor and student. It requires clear statements of expected learning outcomes and clearly articulated and communicated criteria and standards.

## ◆ QUALITATIVE/QUANTITATIVE

**Qualitative assessments** contain assessment findings that are verbal descriptions of what was discovered, rather than numerical findings. Because of their non-numeric nature, qualitative data cannot be subjected directly to statistical analyses, nor can easy direct comparisons be made. However, they provide a more extensive variety of information related to a particular learning goal.

**Quantitative assessments** consist of data that are represented numerically. Because quantitative data can be expressed in numbers, they can be compared directly or subjected to statistical analysis, and they can enable the faculty to express meaningful changes in performance.

## ◆ STUDENT SELF-ASSESSMENT

A process in which a student engages in a systematic review of his or her own performance or learning, usually for the purpose of improving in the future. May involve comparison with a standard, or established criteria. Students learn to set goals and monitor their own progress toward goals.

**Student Self-Reflection** - Asking students to reflect on what and how they have learned – to engage in metacognition.

## VALIDITY AND RELIABILITY

The extent to which assessment tools and methods provide accurate, fair, and useful information.

**Validity** refers to the integrity of the instrument.

**Reliability** refers to the consistency of results for a test or assessment instrument over repeated administrations.

For assessing student learning, The Middle States Commission on Higher Education encourages the use of multiple approaches with thoughtful selection about which approach, or combinations of approaches, best suits the student outcomes that are being assessed in each unique situation (Middle States, 2007. p.34).

### Glossary References

California State University, Long Beach. (2008). Assessment Definitions. Retrieved June 25, 2008, from [http://www.csulb.edu/divisions/aa/grad\\_undergrad/senate/committees/assessment/dev/info/what/](http://www.csulb.edu/divisions/aa/grad_undergrad/senate/committees/assessment/dev/info/what/)

Middle States Commission on Higher Education. (2007). *Student Learning Assessment: Options and Resources*. (2nd ed.). Philadelphia, PA: Middle States Commission on Higher Education.

# Family Educational Rights and Privacy Act of 1974 (FERPA)

This Act provides for the confidentiality of student records. The College reserves the right to release, or not to release, Directory Information at the discretion of appropriate officials.

Directory Information may include a student's name, address, telephone number, field of study, participation in activities, weight and height of athletic team members, dates of attendance, degrees and awards and most recent educational institution attended, e-mail address, class schedule, class roster and photographs.

Students who wish to have Directory Information withheld must notify the Registrar, in writing, within seven days of the first day of instruction and request that such information not be released without consent.

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. They are:

**1) The right to inspect and review the student's education records within 45 days of the day the College receives a request for access:**

Students should submit to the Registrar written requests that identify the record(s) they wish to inspect. The Registrar will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the Registrar, that official shall advise the student of the correct official to whom the request should be addressed.

**2) The right to request the amendment of the student's education records that the student believes are inaccurate or misleading:**

Students may ask the College to amend the record they believe is inaccurate or misleading. They should write the College official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading. If the College decides not to amend the record as requested by the student, the College will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

**3) The right to consent to disclosures or personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent:**

One exception which permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the College in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and Health Services staff); a person or company with whom the College has contracted (such as an attorney, auditor, or collection agent). For collection purposes, the College currently contracts with Joseph Morgano Esq., Allied Account Services, Financial Recoveries, Recovery Solutions and the NJ Division of Revenue SOIL Unit. The College reserves the right to add, delete, or change collection agencies as needed; The College reserves the right to add, delete or change collection agencies as needed; a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his other tasks. A school official has a legitimate educational interest if the official needs to review an education record to fulfill his or her professional responsibility. Upon request, the College discloses educational records without the consent to officials to another school, upon request, in which a student seeks or intends to enroll.

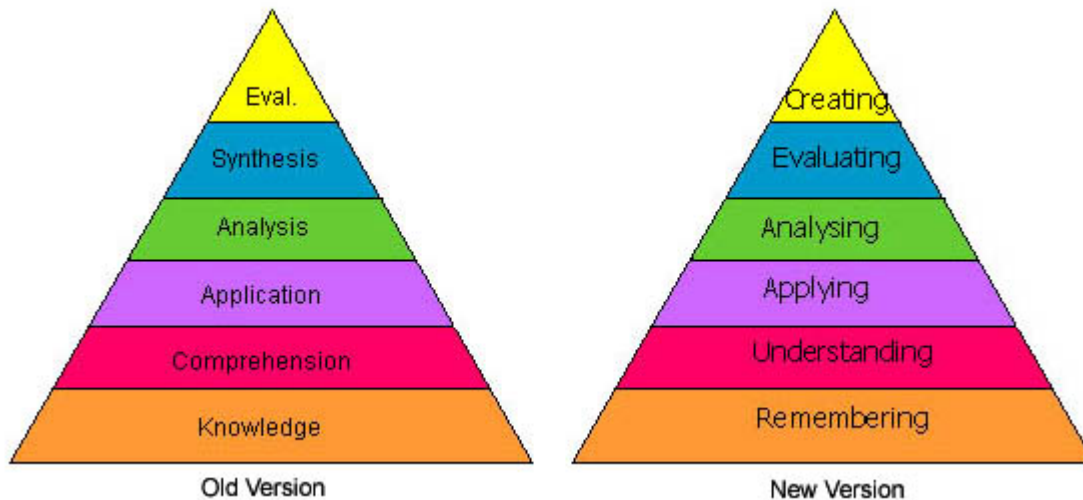
**4) The right to file a complaint with the U.S. Department of Education concerning alleged failures by the College to comply with the requirements of FERPA.**

The name and address of the Office that administers FERPA is Family Policy Compliance Office  
U.S. Department of Education 400 Maryland Avenue SW Washington, DC 20202-4605

# Bloom's Revised Taxonomy

Bloom created a learning taxonomy in 1956. During the 1990's, a former student of Bloom's, Lorin Anderson, updated the taxonomy, hoping to add relevance for 21st century students and teachers. This new expanded taxonomy can help instructional designers and teachers to write and revise learning outcomes.

Bloom's six major categories were changed from noun to **verb** forms.



The new terms are defined as:

<b>Remembering</b>	<b>Retrieving, recognizing, and recalling</b> relevant knowledge from long-term memory.
<b>Understanding</b>	Constructing meaning from oral, written, and graphic messages through <b>interpreting, exemplifying, classifying, summarizing, inferring, comparing, and explaining.</b>
<b>Applying</b>	Carrying out or using a procedure through <b>executing, or implementing.</b>
<b>Analyzing</b>	Breaking material into constituent parts, determining how the parts relate to one another and to an overall structure or purpose through <b>differentiating, organizing, and attributing.</b>
<b>Evaluating</b>	Making judgments based on criteria and standards through <b>checking and critiquing.</b>
<b>Creating</b>	Putting elements together to form a coherent or functional whole; reorganizing elements into a new pattern or structure through <b>generating, planning, or producing.</b>

Because the purpose of writing learning outcomes is to define what the instructor wants the student to do with the content, using learning outcomes will help students to better understand the purpose of each activity by clarifying the student's activity. Verbs such as "know", "appreciate", "internalizing", and "valuing" do not define an explicit performance to be carried out by the learner. (Mager, 1997)

Unclear Outcomes	Revised Outcomes
<p>Students will know described cases of mental disorders.</p>	<p>Students will be able to review a set of facts and will be able to classify the appropriate type of mental disorder.</p>
<p>Students will understand the relevant and irrelevant numbers in a mathematical word problem.</p>	<p>Students will distinguish between relevant and irrelevant numbers in a mathematical word problem.</p>
<p>Students will know the best way to solve the word problem.</p>	<p>Students will judge which of the two methods is the best way to solve the word problem.</p>

Figure 2: Examples of unclear and revised outcomes.

---

### References

- Anderson, L. W., & Krathwohl, D. R. (Eds.). (2001). A taxonomy for learning, teaching and assessing: A revision of Bloom's Taxonomy of educational outcomes: Complete edition, New York : Longman.
- Cruz, E. (2003). Bloom's revised taxonomy. In B. Hoffman (Ed.), *Encyclopedia of Educational Technology*. Retrieved August 22, 2007, from <http://coe.sdsu.edu/eet/articles/bloomrev/start.htm>
- Forehand, M. (2005). Bloom's taxonomy: Original and revised.. In M. Orey (Ed.), *Emerging perspectives on learning, teaching, and technology*. Retrieved August 22, 2007, from <http://projects.coe.uga.edu/epltt/>

## General Education Requirements by Degree

<b>General Education Knowledge Areas</b>		<b>Associate in Arts (A.A.)</b>	<b>Associate in Science (A.S.)</b>	<b>Associate in Applied Science (A.A.S.) or Fine Arts (A.F.A.)</b>	<b>Certificates</b>
1	Communications (C)	9 credits [2 composition and 1 speech course]	6 credits [2 composition courses]	6 credits [2 composition courses]	3 credits [1 composition course]
2	Humanities (HU)	9 credits	3 credits*	3 credits	3 credits
3	Social Sciences (SS)	6 credits	3 credits*	3 credits	
4	Mathematics (M)	3-8	3-8		
	Sciences (SC)	4-8	4-8		
	Technological or Information Literacy Competency (IT)	0-4	0-4	3 credits	
5	History (HI)	6 credits			
6	Cultural and Global Awareness (CG)**	3 credits	3 credits are recommended	3 credits are recommended	
7	Ethical Dimension (E)	At least one course in the student's program of study must contain an ethical dimension. This course, which can come from any of the above knowledge areas, should contain a component that helps the student recognize, analyze and assess ethical issues and situations.			
<b>Additional Credits</b>			<b>6 credits</b> Courses from any category	<b>8 credits</b> Courses from any category	
<b>REQUIRED GENERAL EDUCATION CREDITS</b>		<b>45</b>	<b>30</b>	<b>20</b>	<b>6</b>

\*Students must take 3 credits in Humanities and 3 credits in Social Sciences, plus an additional 3 credits in either category for a total of 9 credits

\*\*Students may meet this requirement while simultaneously fulfilling the General Education requirement for another knowledge area.



*An Equal Opportunity Affirmative Action Institution*