

**COMMUNITY COLLEGE OF PHILADELPHIA
LEARNING OUTCOMES ASSESSMENT MODEL**

**Presented to Dr. Judith Gay
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By the Assessment Task Force of the Academic Master Plan
Community College of Philadelphia**

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2006 - 2007

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Executive Summary of the Learning Outcomes Assessment Model

The focus of the Learning Outcomes Assessment Model is student learning in the classroom and across the Institution. Drawing from the Community College of Philadelphia's Mission Statement, the Assessment Task Force derived five core competencies that frame the learning environment encompassing the overall goals of general education and program/discipline curricula, at CCP. These core competencies include:

- Effective Communication
- Quantitative and Scientific reasoning
- Information and Technological Literacy
- Critical Thinking
- Responsible Citizenship

As students grow through their learning experiences at CCP, the goal is that they will achieve a high level of proficiency in these competencies through their cumulative learning experiences provided across all courses. Criteria instrumental in the development of this plan are highlighted below.

An effective assessment plan must:

- be aligned with the classroom instruction and learning goals.
- provide constructive feedback regarding learning outcomes to instructors, program and department heads, curriculum coordinators, Deans, and students.
- help students understand the elements of excellent work so that they may begin to develop the skills of self evaluation.
- incorporate assessment of the College's general education requirements.
- provide standardized measures that accommodate all levels of learning.
- be fair and unbiased.
- satisfy the Middle States Commission on Higher Education's charge that an institution establish a coherent set of learning goals, that these goals stem from the institutional mission, and that goals at the subordinate levels contribute to the attainment of goals at the higher levels.
- be simple and easy to administer.

Leadership for this ambitious model will be provided by the Director of Academic Assessment. Committees representing the five core competencies will be responsible for articulating appropriate learning outcomes for each competency and developing assessment rubrics that will serve as guides for targeting learning experiences and measuring outcomes.

Ideally, classroom assessments will be varied and frequent, direct and indirect, graded and ungraded with the goal of moving towards electronic portfolios and capstone courses for all students. Institutionally, the core competencies will provide an assessment focus on a rotating cycle beginning with Information and Technological Literacy in year one. Students' proficiency scores, as measured by the related competency rubrics, will be coordinated with the mid-semester grade submission process. This new data can be used to inform students and instructors about learning that has occurred in the classroom, inform departments regarding achievement of program learning outcomes, and provide a base from which to draw a sample to document learning outcomes across the institution.

Assessment is a dynamic and evolving process and this plan should not be considered a static model but rather an optimal beginning. The goal is to create an environment of continual growth and improvement in which students deepen their knowledge base, expand their abilities to think, problem-solve, and evaluate information, as well as foster their capacities for decision-making, communication, and responsible citizenship.

A goal statement about ideal measurement of academic success at a community college can be stated with almost elegant simplicity: precisely assess each student's level of skills, match them to a set of pedagogical and curricular experiences, measure the student's level . . . upon completion, and follow the student to the next phase, where those skills are to be applied . . . and measure again" (Mellow and Heelan, 2008, pp. 51-2).

Overview

Student learning outcomes assessment strives to answer two questions: what are our students learning, and how do we know? (Angelo and Cross, 1993) The Community College of Philadelphia identified Assessment of Student Outcomes as a major part of the Academic Master Plan (2006) stating:

A quality educational institution should be committed to assessing the outcomes of student learning and using the results of that assessment to improve the educational experiences of its students. A plan to assess student learning should be rooted in the College's mission and its core values--specifically, integrity, academic excellence and commitment to teaching and learning. (p. 27)

The General Education Work Group of the Academic Master Plan describes the College's program of General Education as follows:

All students who graduate with an Associate's Degree from Community College of Philadelphia shall be required to a) complete courses in humanities, the social sciences, mathematics, and the natural sciences, b) complete courses in designated essential reasoning and writing skills, c) be introduced to a variety of cultural perspectives central to both a democratic society and to the world, and d) attain technological competency and information literacy.

Although it is derived from the General Education Plan, the Learning Outcomes Assessment Model is not intended to apply only to students earning Associate's Degrees. To be effective, a Learning Outcomes Assessment Model should assess learning at all levels: course, program/discipline and institution. This model is designed to assist faculty in assessing learning at the course level, and the data gathered can be extrapolated and applied to the program and institutional levels. See schematic in Appendix A.

The Assessment Task Force completed an extensive review of the literature regarding learning assessment with a focus on the community college sector including the specific plans of individual colleges, the work of the League for Innovation on the elements of the Twenty-first Century Learning College model, and assessment materials from the Middle States Commission. The work of the League for Innovation identifies "core competencies" for community college students, which are typically drawn from the colleges' mission statements or general education plans. To this end, the Task Force derived five core competencies from the College's Mission and General Education plan. See Appendix B for a chart illustrating the connection between competencies and eventual learning outcomes at different levels of assessment. These core competencies are:

- **Information and Technological Literacy:** Students will be able to retrieve, organize, analyze, and evaluate information using both technological and traditional means.
- **Effective Communication:** Students will read, write, speak, and listen effectively.
- **Critical Thinking:** Students will actively reflect on, reason about, and form independent judgments on a variety of ideas and information, and use these skills to guide their beliefs and actions.

- **Quantitative and Scientific Reasoning:** Students will demonstrate an understanding of mathematical and scientific principles and apply them to theoretical and practical issues.
- **Responsible Citizenship:** Students will demonstrate an awareness of the responsibilities of informed citizenship in a diverse and pluralistic society through service to others, and will demonstrate cultural and global awareness.

The link between the General Education requirements and the Core competencies is illustrated in Appendix C.

As modeled in the work of the League for Innovation Vanguard Colleges, these are high level competencies that are reflected throughout the General Education recommendations and are further delineated as to particular high level learning outcomes and recommended tools for assessment. Each learning outcome articulated in the model can be further supplemented by programs/disciplines to meet their needs; however, outcomes must be expressed consistently in course documents, i.e., all course sections present the same outcomes derived from those set forth in the model. This reflects current practice in such diverse areas as Diagnostic Medical Imaging and Developmental English. Likewise, suggested assessment tools are presented as a point of departure but are in no way intended to be proscriptive. Ideally, classroom assessments will be varied and frequent, direct and indirect, graded and ungraded. Instruments such as learning styles inventories or multiple intelligences tests administered at the start of the semester can provide valuable insights for both students and instructors about the kinds of assessment tools that will best measure whether and what students are learning. A glossary of assessment terms is located in Appendix D.

Consistency among course sections is crucial to an effective outcomes assessment model. To facilitate this consistency, faculty, led by Chairs and Deans, must be encouraged to adopt

syllabi that accurately represent departmentally agreed upon outcomes. In order to meaningfully assess learning, each student in each section of each course must encounter the same agreed-upon outcomes; otherwise, overall course measurements are not valid. Because the assessment tools are only suggestions and are derived from a review of the literature as indicated above, each faculty member will doubtless have his or her own ideas on how to best measure the outcomes. Ideally, collaborative conversations among programs/disciplines about which tools are the most effective would enrich the process.

Framework

Assessment of Student Learning Outcomes

1. This assessment model is designed to demonstrate evidence of student learning in general education and the major at the course, program and institutional levels.
2. This model follows MSCHE Student Learning Assessment recommendations on page 12 which states that the Commission is concerned that the institution develop a coherent set of goals, that those goals stem from the institutional mission, and that goals at the subordinate levels contribute to the attainment of goals at the higher levels. In keeping with this charge:
 - The General Education requirements (goals) are linked to the College's Mission (General Education Plan, page 4).
 - The Assessment Task Force derived five core competencies directly from the College Mission.
3. An assessment structure, derived from the College's Mission and General Education Plan, is comprised of five core competencies that can be operationalized to not only

demonstrate student learning across the institution but also to provide evidence of growth across students' academic careers.

- a. These competencies can be assessed at the course level.
 - b. Course level results can be used to assess Gen Ed, program outcomes, institutional effectiveness, and student growth.
 - c. These results can be included as part of the established Program Review assessment and Institutional Effectiveness.
4. Competencies will be assessed on a rotating cycle.

Implementation

Structure:

The general education requirements were developed as a means by which to ensure that all CCP graduates are exposed to traditional arts and science disciplines as well as developing competence in information gathering and use of computer technology (Gen Ed Plan, p. 10) while the core competencies focus on individual mastery of student learning at each appropriate level. In this regard, the general education requirements and core competencies support each other as competencies are infused throughout all courses and program curricula. The ultimate goal of this assessment model is for every CCP graduate to demonstrate mastery of the core competencies (Information and Technological Literacy, Effective Communication, Critical Thinking, Quantitative and Scientific Reasoning, and Responsible Citizenship) through their cumulative learning experiences in required general education and major courses.

Proficiencies in educational core competencies are cumulative and additive as students progress through their major and general education course requirements. Competency or mastery is achieved through the cumulative learning experiences provided across all courses. Individual

student mastery is evidenced by the change in students' documented and expanded competencies throughout their educational experience. General education effectiveness is evidenced institutionally by the overall change in documented competencies as all students progress through the general educational requirements.

The Task Force proposes the following institutional structure for implementing the model. A Director of Academic Assessment would oversee the following proposed assessment committees:

- General Education Committee
- Effective Communication Committee
- Quantitative and Scientific Reasoning Committee
- Information and Technological Literacy Committee
- Critical Thinking Committee
- Responsible Citizenship Committee
- Portfolio Review Committee

The Director would be responsible for coordination of the assessment model, professional development activities around assessment, development and maintenance of an Assessment Website, communication to the College, and assessment forum updates. The participating Committees, using the proposed model, will develop a core of specific learning outcomes and assessment tools related to competencies. The assessment committees will also develop rubrics to serve as guides for instructors, evaluators, and students. Instructors and course designers can use the rubrics to create and target learning experiences for students that will meet the identified core competency outcomes. These rubrics will be a resource for students to understand the

criteria for achieving mastery in each competency. Rubrics will also systematically guide the evaluation of student learning across courses and programs.

Process:

Based on the recommended assessment cycle – planning, delivery, evaluation, and feedback – (see Appendix E), the first assessment cycle would begin with an assessment and evaluation of information and technological literacy. Students’ results on each cycle’s assessed competency, as measured by selected competency rubrics, will be coordinated with the current mid-semester grade submission process. This new data will establish benchmarks for each competency against which future assessments could be compared. This data will also inform students and instructors about learning that has occurred during the semester, inform departments regarding achievement of program learning outcomes, and provide a base from which to draw a sample to document learning outcomes at the institutional level (see schematic in Appendix F). To that end, the following strategy is proposed:

- Assessment results collected during the mid-term grading process
- Data analyzed
- Feedback provided the following semester
- Planning for course modifications/revisions
- Delivery of any course modifications/revisions

Assessment Tools

Promising practices indicate that capstone courses and portfolios or other collections of sample student work are two of the most prevalent ways to assess learning within programs and across the institution. The success of LaGuardia and other community colleges to use both capstone courses and electronic portfolios validates discussions at CCP for such program

assessment. LaGuardia's model relies on three required portfolio development courses: a first year experience course, a required urban studies course and a capstone course (LaGuardia, 2007). The FYE course "initiates" the portfolio process which is developed and reinforced in subsequent courses where written communication, critical reading and critical thinking are developed and assessed. Quantitative reasoning is developed and assessed in two required courses determined by respective programs. Research and information literacy are "reinforced and assessed" in the capstone course. Each portfolio also must contain an oral presentation, and technology competencies are assessed by the portfolio itself (LaGuardia, 2007).

In the CCP model, e-portfolios will provide snapshots at various points in student learning. Students will be introduced to the portfolio process in Student Orientation, courses, and/or portfolio workshops. Workshops for faculty in portfolio use will be provided. Capstone courses to be used in conjunction with portfolios will be decided by programs as will rubrics for assignments, courses and programs; Surveys (web tools); embedded questions related to competencies, and common assignments across sections.

The e-portfolio is a promising practice that not only aids in assessing the institution's effectiveness but also in meeting the demands of transfer institutions and employers (Association of American Colleges and Universities, 2008) by surpassing the static and heavily encoded transcript and demonstrating with concrete samples not only what students have been taught but what they have learned, integrated, synthesized, and applied (Bloom, 1956). In their new book, *Minding the Dream: The Process and Practice of the Community College* (2008), Mellow and Heelan cite Bringle and Hatcher (1997) that "Critiques of college-educated students from employers are often . . . that students come with good grades but seem unable to apply the

theoretical information from classes to actual situations or to generalize from a present situation to undertake better action in the future” (110).

The technology to develop electronic portfolios need not be costly; the Task Force is exploring a free portfolio application through Google that is currently in use in a variety of educational settings. While an electronic portfolio is not essential to realizing this assessment model, its use with capstone courses and other methods of collecting and reviewing students’ work across the course of their studies would appear to give the most comprehensive view of what they have learned as well as what outcomes and assessment measures have yielded the most telling results for improving teaching and learning.

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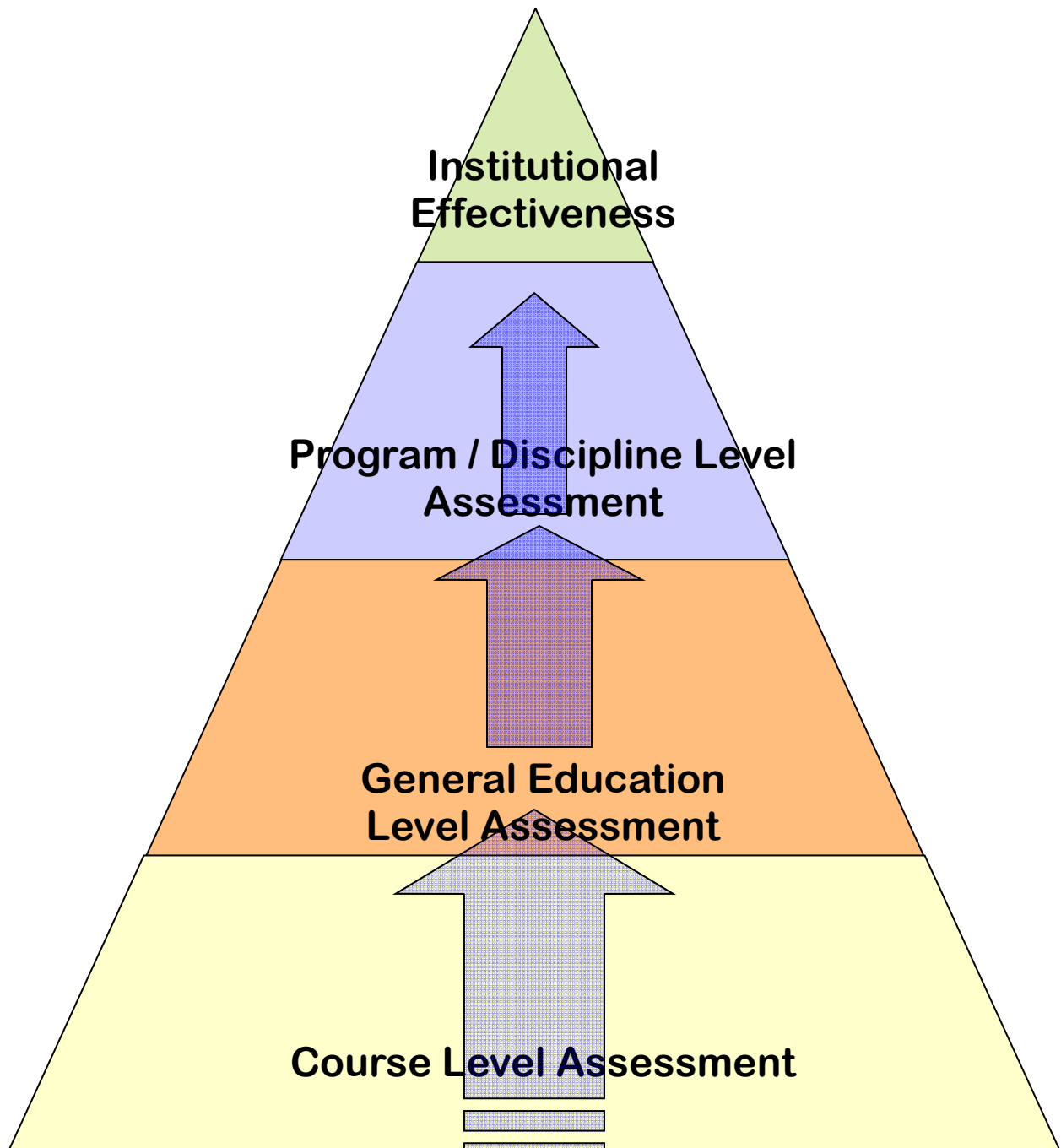
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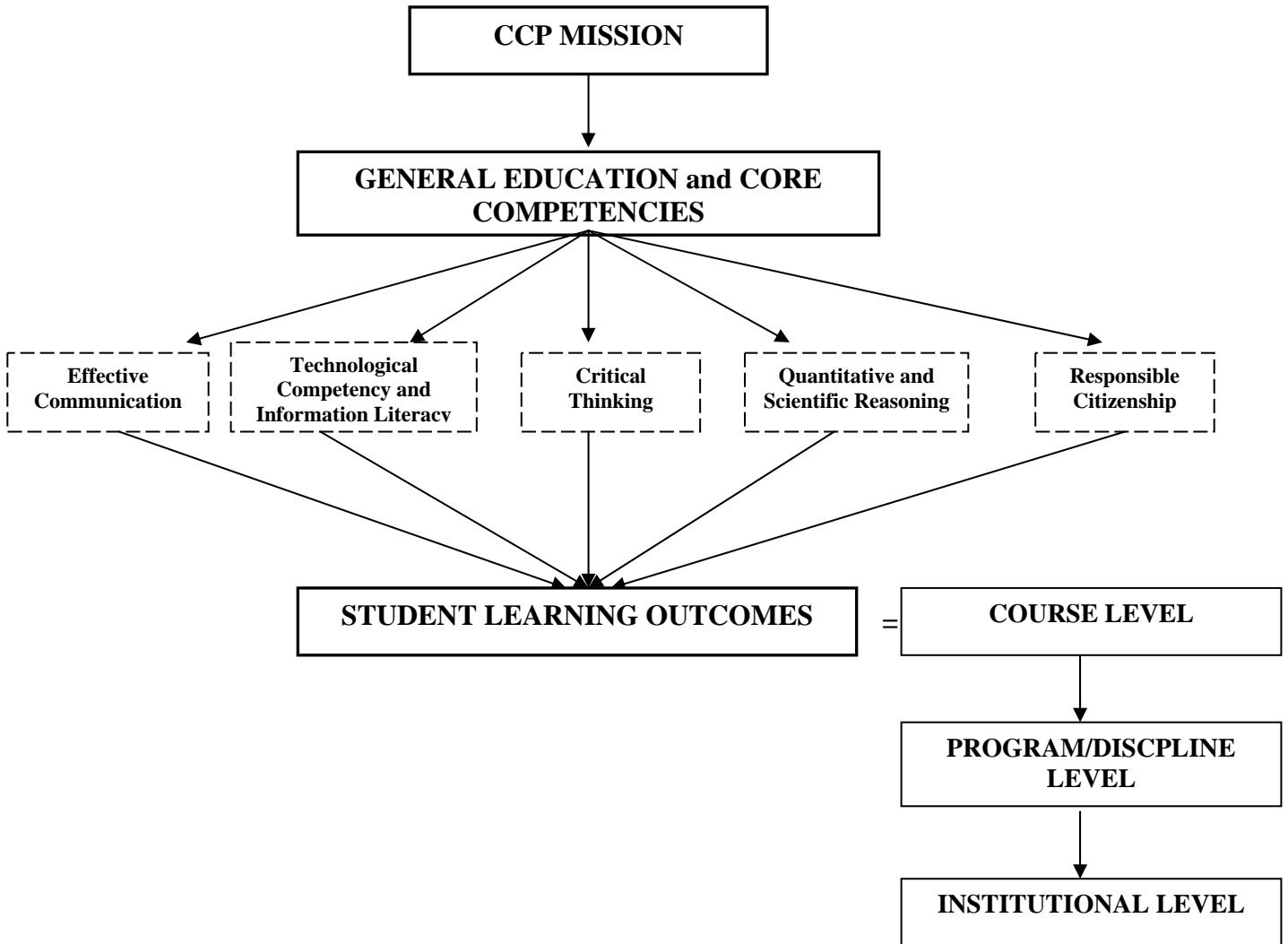
Appendix A

Levels of Assessment



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Appendix B
Learning Outcomes Assessment Model



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**Appendix C
Illustration Linking Core Competencies with General Education Assessment**

Core Competency	Links to Gen Ed	Learning Outcome	Suggested Assessment Tools	Assessment Results	Benchmark	Actions	Timetable
<p>Effective Communication Students will read, write and listen effectively</p>	<p>English 101, 102, 112; Writing Intensive Courses, Social Sciences, and other courses</p>	<p>Students will be able to make a written, oral or visual presentation using correct diction, syntax, usage, grammar, and mechanics.</p>	<p>Written projects/papers Oral presentations Visual presentations Electronic student portfolios Reflective essays/evaluations of self or peer work Departmentally developed or nationally normed tests Measure of Academic Proficiency and Progress - ETS</p>				
<p>Information and Technological Literacy Students will demonstrate computer fluency and be able to retrieve, organize, analyze, and evaluate information using both technological</p>	<p>CIS 103, English 102, Humanities, Natural Sciences and other courses</p>	<p>Use technology to identify the nature and extent of information needed to resolve a question. Identify appropriate methods of accessing credible information and data resources.</p>	<p>Research assignments Multimedia presentations Course projects Library and computer surveys common ENG 101 course project (currently in "design/discussion" phase)</p>				

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Core Competency	Links to Gen Ed	Learning Outcome	Suggested Assessment Tools	Assessment Results	Benchmark	Actions	Timetable
and traditional means.			Information and Communication Technology Literacy Test – ETS				
<p>Critical Thinking Students will actively reflect on, reason about, and form independent judgments on a variety of ideas and information, and use these skills to guide their beliefs and actions.</p>	Introduction to the nature of inquiry in Humanities, Social Sciences, Interpretive Studies, Mathematics (Math 118 or above), Natural Science, or English 101, 102 or 112 and other courses	Demonstrate comprehension of complex ideas in print and non-print materials. Develop significant questions for exploration. Clearly communicate and defend a position providing evidence and support.	Course embedded assignments Research papers “Close” reading Class discussion/debate Projects applying & interpreting course content) Solving technological problems California Academic Press: Tools to Evaluate Reasoning and Critical Thinking http://www.insightassessment.com/				
<p>Quantitative and Scientific Reasoning</p>	Mathematics (above Math 118), Natural Sciences, Psychology and other courses	Demonstrate understanding of mathematical and scientific principles. Interpret numerical	Science course exams Application of scientific method in the laboratory Mathematics course exams				

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Illustration Linking Core Competencies with General Education Assessment**

Core Competency	Links to Gen Ed	Learning Outcome	Suggested Assessment Tools	Assessment Results	Benchmark	Actions	Timetable
		information presented in graphic and/or other visual forms.	Successful course completion Post-test vs pre-test placement scores in Math Statistical analysis reports Organizing numerical information appropriate to the problem represented by data Arrange data into a table, spreadsheet, equation, or graph Create a pictorial representation Measure of Academic Proficiency and Progress – ETS				
Responsible Citizenship Students will demonstrate an awareness of the responsibilities of informed citizenship in a	American Diversity/Global Diversity Studies Courses, Humanities, Social and Natural Sciences and other courses	Work as an effective team leader. Demonstrate personal ethics and responsibility. Appreciates diversity of	Analysis of arts and culture Attendance at community and arts events that are reported on campus conduct Attendance and pu				

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<p>diverse and pluralistic society through service to others, and will demonstrate cultural and global awareness</p>		<p>cultures and the opinions of others. Understands the significance of the arts, current and social events.</p>	<p>activity for class classroom participation Group work Class debates on social, cultural, political issues Member of student government Member of a campus organization or club Peer tutoring Service learning (selected courses or extracurricular) Course embedded essays and/or oral presentations Portfolio development Personal development surveys Student focus groups or surveys Tool - <i>Intercultural Development Inventory</i></p>				

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Appendix D
Glossary of Assessment Terms

Assessment: The ongoing process of establishing measurable outcomes of student learning, ensuring that students have sufficient opportunities to achieve those outcomes; gathering, analyzing, and interpreting evidence to determine how well student learning matches expectations, and using the information to understand and improve student learning. (Suskie)

Benchmark: How do students compare to *peers* from a norm-referenced perspective or to *standards* from a criterion-referenced perspective? (Suskie)

Capstone project: A holistic project that helps students tie together the curriculum/program's various elements and provides important evidence of overall effectiveness of a program in achieving its major learning goals. Examples are theses, oral defenses, exhibitions, performances, presentations, and research projects. (Suskie)

Classroom assessment: An approach designed to help teachers find out what students are learning in the classroom and how well they are learning it. (Angelo & Cross)

Classroom assessment techniques (CATs): Simple tools for collecting data on student learning in order to improve it. CATs are "feedback devices", instruments that faculty can use to find out how much, how well, and even how students are learning what they are trying to teach. (Angelo & Cross)

Criterion-referenced assessment: An assessment in which an individual's performance is compared to a specific learning objective or performance standard and not to the performance of other students. (CRESST)

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Direct assessment: Assessment measures that directly evaluate student work. Examples of direct measures include exams, papers, projects, computer programs, interaction with a client, or musical performances. (Walvoord)

Embedded assessment: A means of gathering information about student learning that is built into and a natural part of the teaching-learning process. Example: as part of a course, expecting each student to complete a research paper that is graded for content and style, but is also assessed for advanced ability to locate and evaluate Web-based information (as part of a college-wide outcome to demonstrate information literacy). (Leskes)

Focus groups: In-person interviews of small, often homogeneous groups of people such as current students, graduating students, alumni, current and prospective employers, and student supervisors in field experiences. (Suskie)

Formative assessment: The gathering of information about student learning during the progression of a course or program, usually repeatedly, to improve the learning of those students. Example: reading the first lab reports of a class to assess whether some or all students in the group need a lesson on how to make them succinct and informative. (Leskes)

Indirect assessment: Assessment measures that include asking students or alumni how well they thought they learned, tracking their graduate school or job placement rates, and so on. (Walvoord)

Institutional effectiveness: Defined as how well an institution is achieving its mission and major institutional goals. (Suskie)

Learning outcomes: Also referred to as learning goals, they are the knowledge, skills, attitudes, and habits of mind that students take with them from a learning experience. (Suskie)

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Learning styles inventory: An instrument to measure students' preferential method for taking in and processing information: by seeing and hearing, reflecting and acting, reasoning logically and intuitively, analyzing and visualizing, steadily and in fits and starts. (Felder)

Multiple Intelligences: Howard Gardner's (1991) theory that "we are all able to know the world through language, logical-mathematical analysis, spatial representation, musical thinking, the use of the body to solve problems or to make things, an understanding of other individuals, and an understanding of ourselves. (Lane)

Norm- referenced assessment: An assessment where student performance or performances are compared to a larger group. Usually the larger group is a national sample representing a wide and diverse cross-section of students. (CRESST)

Objective: Describes the tasks to be accomplished to achieve the goal – the means to the end, the process leading to the outcome. (Suskie)

Performance standards: Explicit definitions of what the student must do to demonstrate proficiency at a specific level in a course or program. (adapted from CRESST)

Portfolio: Assembles, in one place, evidence of many different kinds of student learning. It shows not only the final outcome of a course or program but also how the student has grown as a learner. (Suskie)

Portfolio assessment: A portfolio becomes an assessment when: 1) the assessment purpose is clearly defined; 2) there are specific criteria for determining what is put in the portfolio by whom and when; 3) there are defined criteria for assessing either the collection or individual pieces. These criteria are then used to make judgments about performance. (CRESST)

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Qualitative assessment: Uses flexible, naturalistic methods and are usually analyzed by looking for recurring patterns and themes. Examples include: reflective writing, notes from focus groups, interviews, and observations, and online discussion threads. (Suskie)

Quantitative assessment: Uses structured, predetermined response options that can be summarized into meaningful numbers and analyzed statistically. Examples include: test scores, rubric scores, and survey ratings. (Suskie)

Rubrics: A scoring guide: a simple list, chart, or guide that describes the criteria that you will use to score or grade an assignment. (Suskie)

Standards: Statements of expectations for student learning. (CRESST)

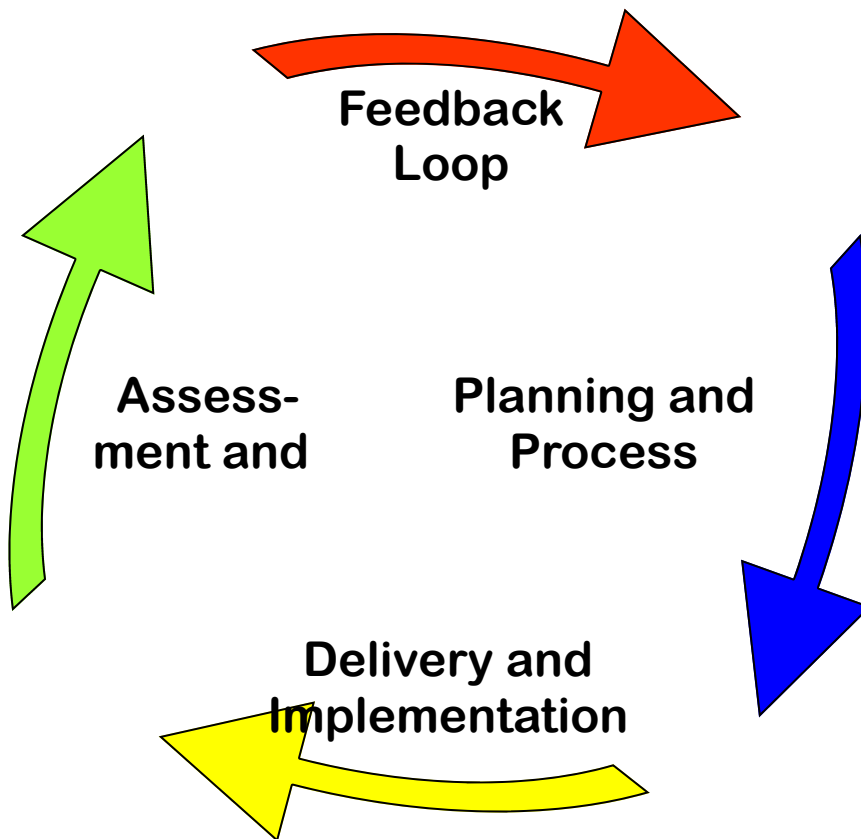
Summative assessment: The gathering of information at the conclusion of the course, program, or undergraduate career to improve learning or to meet accountability demands. When used for improvement, impacts the next cohort of students taking the course or program. (Leskes)

Validity: The extent to which an assessment measures what it is supposed to measure and the extent to which inferences and actions made on the basis of test scores are appropriate and accurate. (CRESST)

Value added: The increase in learning that occurs during a course, program, or undergraduate education. Can either focus on the individual student (how much better a student can write at the end than at the beginning) or on a cohort of students (whether senior papers demonstrate more sophisticated writing skills than freshmen papers). Requires a baseline measurement for comparison. (Leskes)

Appendix E

Assessment Cycle



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Appendix F

