

Creating a Culture of Excellence:
How to Write an Assessment Plan
A Guide for Programs in Liberal Arts and Sciences

Developed by

Janice W. Anderson
Com. and Media Department

Kelli Parmley
Office of Institutional Research

Created in conjunction with the Office of the Provost and the Office of the Dean of the College of Liberal Arts and Sciences.

November 5, 2003

Table of Contents: How to Write an Assessment Plan

- I. Overview: What are the Steps in Writing an Assessment Plan?
- II. Step One-- Identify the Context: Who are you and how do you do what you do?
- III. Step Two -- Prioritize Goals and Identify Desired Performance: Where you are heading and what performances will show your progress?
- IV. Step Three -- Select your methodology: What do you want to measure (qualitative or quantitative), how, and who's responsible?
- V. Step Four --Put the Plan together
- VI. Appendices:
 - Appendix A: Tool for Assessing and Assessment Plan
 - Appendix B: Program Assessment Plan Template
 - Appendix C: Bloom's Taxonomy of the Cognitive Domain
 - Appendix D: Summary of Methods and Additional Assessment Resources

How to Write an Assessment Plan A Guide for Programs in Liberal Arts and Sciences

In Spring 2003, the faculty approved the general assessment philosophy proposed by the Assessment Steering Committee. “First and foremost,” the proposal states, the assessment program “must be ‘right’ for New Paltz and therefore engage the campus at its ‘grassroots’” The goal is to make “assessment an integral part of campus life and culture”(11/18/02, p. 3). Our task now is to translate the Steering Committee’s general principles into specific guidelines that departments can use to develop on-going assessment processes. By the end of 2003 -- 2004 academic year, all the Departments within the College of Liberal Arts and Sciences will have developed plans for assessing their programs. To help departments approach this task, we offer the following to help organize assessment discussions and write an assessment plan.

What are the Steps in Writing an Assessment Plan?

Just like students always ask, “How many pages does the paper have to be,” department members want to know what is expected of them. In a nutshell, each department is being asked to:

- engage in a systematic discussion of program goals and high-quality outcomes,
- develop a plan for generating evidence that shows your progress on the most important goals you identified.

A complete plan has four major steps:

1. Identify the Context: Who are you and how do you do what you do?
2. Prioritize Goals and Desired Performance: Where you are heading and what performances will show your progress?
3. Select your methodology: What do you want to measure (qualitative or quantitative), how, and who’s responsible?
4. Put the Plan Together

How are the following sections organized?Skipping the Step-by-Step:

If you are already familiar with assessment through accreditation or some other means, you can skip directly to the Appendices. The form or template for a Program Assessment Plan is Appendix B. Bloom's taxonomy of cognitive skills lists different verbs you can use when writing student learning outcomes or program goals (Appendix C). Finally, Appendix D provides a summary of commonly used assessment means and additional sources you can consult for more detail on how to link your performance statements with methods.

Proceeding Step-by-Step:

Each section has:

- *Discussion Prompts or a description of the purpose*
- *Characteristics (criteria) that briefly describe what make a quality product in that section*
- *Additional, hypothetical examples from other disciplines*

Step One: Identify the Context for Assessment

What “program”?

Departments typically include a variety of programs under one administrative rubric. In some cases, the term “program” might be synonymous with the term, “academic major;” however, a department might also have “programs” such as an internship program that cut across academic majors. The key is to be clear about which level of generality you are using when you say, “program”. In general, programs have resources attached to them and consist of a set of coordinated activities geared toward specific outcomes. It is not necessary to assess all programs in a department at once. You can focus your assessment activities in a single year. It is necessary, however, to be clear about which programs you are assessing. (See header in the Program Assessment Plan Template, Appendix B).

Part one asks all program members to think holistically about their program. By developing a mission statement, statement of program scope, and identifying the activities/processes department members discover common ground. While the perspective of program review is about looking back in time about performance and strategic planning is forward looking, the development of part one also means that you’ve developed critical elements for each of those processes.

Tips for Facilitating the Discussion and Capturing the Information:

Meeting Preparation:

- Gather copies of catalogue copy, course descriptions, brochures, previous accreditation reports, and past strategic plans for easy reference.
- Schedule assessment discussions outside of the normal time for department meetings.
- Plan for two or three shorter meetings rather than one long session

During the Meeting:

- Designate a recorder to capture the key phrases that emerge and share notes between meetings.
- Brainstorming and then collapsing or prioritizing from that list is often helpful
- Agree on guidelines for developing consensus. Consensus is more likely if group members:
 - * Listen to others.
 - * Share information.
 - * Avoid voting.
 - * Combine ideas together.
 - * Encourage equal participation.
 - * Avoid agreeing just to hurry things.
 - * View differences as natural

After the meetings

- Share summaries via e-mail/Black Board allowing corrections, additions, and quick editing.
- Reinforce the progress that has been made.
- Share ownership of the plan with the group.

Identify the Context for Assessment

I. A. Writing a Mission Statement

Discussion Prompts:

- Where does the program fit in the larger mission of the college?
- Who provides inputs to your program in the form of people, materials, knowledge base or processes?
- Who makes use of the outputs of your program in terms of people, materials, knowledge-base or processes?
- Who do you serve?
- What do you value?

Examples:

Chemistry

The chemistry program is a dynamic community of diverse learners and researchers who consistently collaborate in producing an increasingly effective (productive) learning and research environment valuing the service to profession and society.

English

The English and Composition program prepares students to participate in a variety of different fields by fostering collaboration both among the faculty and within the classroom, and by emphasising effective writing skills, diverse rhetorical strategies, critical thinking skills, knowledge of various literary traditions, and competency in academic research and applications of current technology.

Black Studies

Black Studies is a challenging multi-disciplinary department involved in the innovative exploration, stimulating analysis, and illumination of the inclusive contributions of African people to world culture and history and seeks to define the unique Black experience from an African-centered perspective.

Identify the Context for Assessment

I. B. Scope of your program

The purpose of the program scope is to be explicit in the “boundaries” of the program. Misperceptions of programs by different constituents, including those responsible for the program (yourselves), often create “gray” areas that make effective assessment and gauging progress difficult. Minimizing the “gray” is the purpose of identifying the scope.

Discussion Prompts

- What is the focus of your program (Scope)?
- What knowledge base or disciplinary boundaries define your program?
- What is not within the scope of your program?
- What makes your program different from others?
- What misconceptions exist about your program? Why?

Examples:

Anthropology

Overall, our course offerings resemble those offered by anthropology departments found in four-year comprehensive institutions, but unlike larger programs, commonly found in university settings, this undergraduate program offers an intimate setting for students to have significant one-on-one contact and engagement with faculty members. The program provides a strong foundation in anthropology such that students will find themselves prepared to pursue graduate studies. The department values internships as an experience and works hard to ensure those opportunities are available. While most faculty members have worked abroad, the department does not provide foreign field experience to students. Also, our size does not allow us to provide comprehensive undergraduate training in some areas (e.g., physical anthropology).

Psychology

The range of disciplinary expertise in the faculty of the undergraduate psychology program offers students a learning opportunity of significant breadth in terms of exposure to the major sub-disciplines in psychology. The program has a strong empirical orientation complimented by fieldwork opportunities that provide student with initial, practical experience. In spite of the breadth of sub-disciplines that faculty bring to the program, some areas are not represented (e.g. forensic) and the program itself is not intended for concentrated study in a specialized sub-discipline or in-depth practical/clinical training (ie. Produce counselors)

Identify the Context for Assessment

I. C. Identify the Key Activities and Processes that Contribute to your Program

Writing descriptive statements about the processes that contribute to the program helps those responsible for the program as well as other constituents see the “big picture” and the range of activities that contribute toward a quality program. Identifying these processes and activities may also provide important clues about where to make programmatic changes after you’ve analyzed assessment results. They can also provide important clues about what’s most important to assess.

Discussion Prompts

- How do you do what you currently do (Activities/Processes)?
- What organizational processes are critical to the strength of your program?
- What processes contribute to student learning in the classroom? Outside of the classroom?

Examples:

[Note: The following simply lists examples of processes that then would be described in terms of how they transpire from start to finish]

Marketing and Recruiting
Student advising.
Alumni outreach
Curriculum design and development
Faculty Development

Step Two: Prioritize Goals and Identify Desired Performance

While the first step of the assessment form asks you to clarify your program's current mission, scope, tools, and processes, this section asks you to identify where you are headed and what outcomes you expect from your efforts. Step two of the assessment plan leads you to identify specific goals along with what desired performances you want from students and the program that allow you to gauge your progress. It is important to remember in this step that this is about identifying improvement, not making evaluative judgments about current quality which is the context for program review.

Defining what you want to see from your program is an essential part of the process. Being explicit about where you are trying to head provides insight about where to focus your efforts. The trick in writing clear goals and then specifying the performance objectives is to successfully negotiate different levels of generality; goals are more general than performance statements, yet more specific than a mission statement. Keep in mind that you will not be measuring in any one year all of the outcomes you expect your program to produce.

Why identify student and program goals separately?

The trend in assessment practice has been increasingly toward writing and measuring student learning outcomes, almost exclusively. While they are essential to identify in assessment, it is equally important to balance your programmatic "picture" by looking at other program goals that likely contribute, indirectly, to student learning. Additionally, you may find that the data collection for measuring student learning outcomes may take a bit of time, but in the meantime assessment of other aspects of the program can proceed.

What is the time horizon of the plan?

The assessment plan should be approached with a five-year time horizon in mind. If on an annual basis some assessment is undertaken and analyzed, over the course of five years you will accumulate information that will make the writing of your program review or accreditation report much easier. Additionally, what you learn from assessment can be utilized in student recruitment and marketing, applying for grants as well as informing the budgeting and strategic planning processes. Therefore, when you consider your goals think of a five-year timeframe and ensure that you are considering goals for existing features of your program (they may not be at the level of quality that you desire, but that's the purpose of assessment). If you start to develop goals that are about putting new things in place, e.g. "we'd like to add X, Y, and Z", put them aside in a separate list for purposes of strategic planning.

Prioritize Goals and Identify Desired Performance

II. A1. Student Learning Goals and Program A. 2.Goals

Goals are desired end states, but are more general than statements of desired performance in section II. B. 2.

Facilitating the Discussion:

Review your mission, scope, and processes and brainstorm a list of student and program goals.

- Who do you hope graduates from your program?
- What is “produced” as a result of the processes that you’ve identified for your program?

Another way to structure the discussion is to “self assess” your program by considering what you believe the current strengths and areas for improvement are of the program (including why they are strengths and areas for improvement). Often thinking this way will elicit ideas for goals as well as provide information for the next step, performances.

Go back and select (prioritize) a few (5-8 at most), keeping a five-year time horizon in mind

- Which are critical to program success?
- Which are you most interested in understanding more fully?

Examples:

Student Goals:

Students who are creative, reflective, and critical professionals.

Students who can critique, perform, and exhibit works of art.

Students who are sensitive to and appreciate other cultures and perspectives

Students who have an awareness of how moral claims and concerns may arise in distinct contexts and venues.

Program Goals:

Out-of-Class Experiences for Students:

Increase the availability of discipline-relevant experiences outside of coursework (e.g., research colloquia and brown bags, guest speakers) which allow students to apply their knowledge and interact with faculty and each other.

Curriculum:

Improve the diversity of the courses that students complete for the program.

Advising:

Increase student knowledge of program requirements.

Prioritize Goals and Identify Desired Performance

II. B. 1. Identify Desired Student and B.2. Program Performance

Facilitating the Discussion:

Writing a complete statement of desired (high level) performance you expect from your students and other aspects of the program will allow you to gauge, when you collect data (quantitative or qualitative), and measure your progress and focus on improvement. The statement of performance you desire should be written somewhere between where you believe you are now and the “ideal”. In other words, it’s written with a high level of performance expectation, but is realistic on a five-year time horizon.

Consider your student and program goals and for each brainstorm two lists. The first list would identify the current or existing qualities of students and the program. The second brainstorm would be a list of the “ideal” (think about other programs you know of or consider a program with unlimited funding--what qualities do they have?). Take the key, realistic elements from each to write a complete statement of performance you expect from students and the program. Bloom’s taxonomy of the cognitive domain is a helpful tool for considering student learning outcomes according to their complexity (See Appendix C).

Examples:

Student Performance

Fully qualified graduates who are consistently accepted in graduate schools of choice because of their documented abilities to carry out independent laboratory work, undergraduate research, and effective problem solving.

Students can evaluate the results of social scientific studies, compare and contrast different theories or research methods, and identify the major concepts that theorists employ in the discipline to explain social dynamics and institutions.

Program Performance

Diverse Curriculum:

Offer a rich and diverse range of courses that span genres, historical periods, major authors, and ethnic backgrounds across many Anglophone cultures, exploring diversity issues in race, sex and economic backgrounds.

Research:

Extensive, wide spread research effort with collaboration among students and external researchers resulting in highly funded research projects and significant peer review journal articles and presentations.

Out-of-Class Experiences:

Students in the undergraduate program have available to them numerous opportunities to participate in discipline-relevant experiences outside of their normal coursework that allow them to actively apply their knowledge and to engage with faculty and peers.

Step Three: Selecting Your Methodology

Once you have prioritized and written strong statements of the performance you desire from students and other aspects of the program you can begin to identify, again by prioritizing, what aspects of that performance will be most meaningful, yet time and cost-effective in measuring. Again this is intended to “measure” (qualitatively or quantitatively) those aspects that matter most and will help gauge progress in a meaningful way. Once what you decide to measure has been pared down to a select few (no more than three per performance), it is possible to identify how the collection will occur as well as who will have primary responsibility for coordinating the effort. You don’t have to assess everything at once; collect less and analyze more. Appendix D provides both a summary chart of possible methods as well as a list of additional sources you can use to obtain more information on methods.

The examples for this section (what do you want to measure, how and who) are illustrated in the Table that follows. It takes select examples of performances (from different, separate programs) and illustrates both the possible aspects of each performance to measure and how that information might be collected.

III. Selecting Your Methodology

A. What aspects of the performance are most important to measure?

Discussion

Each statement of desired performance contains many aspects of that performance that could possibly be measured. Again, the idea is to limit this to a select few, key or critical, aspects of that performance to measure. For each performance statement you should choose no more than 3 aspects to pursue for measuring. While measuring one aspect of the performance may not give a “complete” picture, more than 3 (multiplied times 5 performance statements) will be overwhelming even over the course of five years. The first column of the summary table in Appendix D provides examples of aspects of performance to measure as well as how data might be gathered.

B. How will you gather what is to be measured?

Discussion

One tendency in this step is to decide what to measure based on what is readily available. In many instances this may actually provide you with meaningful information, but may not be the aspect of performance that you are most interested in or is most important for improvement and gauging progress. You may be surprised at what can be a source of “data” (qualitative or quantitative) and with a small amount of work can be utilized for assessment. It will be rare that something will have to be developed from scratch.

Consider how you will manage the data collected:

1. What will you do with the data after you have collected it?
2. How can you avoid collecting redundant data?
3. How can you make use of existing information streams?
4. What is ethical in dealing with human subjects?
5. What resources will you need for data collection/storage?

C. Who’s responsible, when?

Discussion

This should specify by name who is responsible for coordinating the completion of each assessment activity. Putting down time frames for accomplishment allows those responsible for the program, as well as key offices like the Dean’s office, to assess the timing and intensity of various activities and allows for planning.

D. What resources do you need to implement your plan?

While the assessment method that is proposed should balance effectiveness with cost and efficiency such that a reasonable approach is put forward, you may find that you need some additional support to proceed.

Example: What to measure, how, when and who?

Performance (from Section II. B)	III. A. What aspects of the performance are critical to measure?	III. B. How (by what means) will you gather the data?	III. C. When will Assessment Begin?	III. C. Who is Responsible for What?
<p>1. Program Performance: Curriculum <u>Statement:</u> Offer a rich and diverse range of courses that span genres, historical periods, major authors, ethnic backgrounds across many Anglophone cultures exploring diversity issues in race, sex and economic backgrounds.</p>	a. Diversity	Department’s collection of syllabi reviewed using a “score sheet” that rates each syllabus for the degree of diversity in important areas. Each sheet is entered into an excel spreadsheet; the overall level of diversity as well as “categories” are analyzed.	Analysis of syllabi Fall 2003 Spring 2004	Mary to coordinate.
	b.			
	c.			
<p>2. Student Performance: <u>Statement:</u> Fully qualified graduates who are consistently accepted in graduate schools of choice because of their documented abilities to carry out independent laboratory work, undergraduate research, and effective problem solving.</p>	a. Placement Success	An alumni follow up survey, done six months after graduation, that captures information about the type of graduate school placement (e.g. 1 st choice, 2 nd choice, etc.)	Develop Survey Spring 2004, Implement Fall 2004	Joe to coordinate
	b.			
	c.			
<p>3. Student Performance: <u>Statement:</u> Students can evaluate the results of social scientific studies, compare and contrast different theories or research methods, and identify the major concepts that theorists employ in the discipline to explain social dynamics and institutions.</p>	a. Evaluate disciplinary theories through comparison and contrast.	A stratified sample of student papers (anonymous) is obtained from the program’s capstone course and using a rubric a team of faculty (3) assess the papers. Rubric results summarized, but may also be linked to GPA and transcript analysis.	Develop rubric Spring 2004 and “pilot” Fall 2004. Implement in Spring 2005	John to coordinate. IR to assist in developing sample parameters.
	b.			
	c.			

Example: What to measure, how, when and who? (cont.)

Performance (from Section II. B)	III. A. What aspects of the performance are critical to measure?	III. B. How (by what means) will you gather the data?	III. C. When will Assessment Begin?	III. C. Who is Responsible for What?
<p>4. Program Performance: Out-of-class experiences</p> <p>Students in the undergraduate program have available to them numerous opportunities to participate in discipline-relevant experiences outside of their normal coursework that allow them to actively apply their knowledge and to engage with faculty and peers.</p>	a. Discipline relevant opportunities outside of class.	Department “folder of events” maintained by the department chair are counted as well as rated by program faculty for their level of disciplinary relevance.	Develop a brief rating sheet Spring 2004. Implement for 04-05 academic year.	Mary to coordinate.
	b.			
	c.			
<p>5. Program Performance: Research</p> <p>Extensive, wide spread research effort with collaboration among students and external researchers resulting in highly funded research projects and significant peer review journal articles and presentations.</p>	a. # of faculty with # of Annual Qualified Publications	Faculty annual reports to compile # of faculty and # of annual qualified publications using a “rule sheet” that identifies what constitutes “annual qualified publication”.	Develop rules sheet Fall 2005. Implement 06-07 academic year.	Jeff to coordinate.
	b.			
	c.			

Step Four: Put the Plan Together

The material from each of the previous steps can now be put into the template in Appendix B and be viewed in its entirety. Overall, an effective assessment plan:

- Has involved all departmental members on an equal footing.
- Describes desired performance for “quality” learning and a “quality” program.
- Looks forward to what “could be.”
- Employs assessment terminology rather than evaluative language.
- Raises issues rather than suppresses them.
- Links performance goals, methods, and results.
- Addresses the key/priority questions and concerns faculty may have about student learning in their program.
- Describes resources necessary for the plan.

At this point it is helpful not only to have members of the program assess the plan, but to have colleagues from another program assess your plan. The “Tool for Assessing an Assessment Plan” in Appendix A can be helpful. One effective and manageable way for using the tool for assessing your assessment plan is to identify a few areas (say three) where you would like some feedback. Specify those areas and provide your plan to 2-3 colleagues in another department for their feedback. Keeping it to 2-3 areas to assess and 2-3 people providing the feedback keeps it manageable, yet constructive.

Ultimately, assessment is about program improvement. Systematic inquiry grounded in evidence helps program members to identify redundancies and recognize critical paths. All actions are not equal in terms of their effects. Often, the “quality” of a program stems from twenty percent of its activities and processes. By identifying where to focus our actions to get the most “bang for our buck”, we discover how to work smarter. It is this intelligence that is the real pay-off from systematic, on-going assessment.

Appendix A: Tool for Assessing an Assessment Plan

Quality Characteristics of Steps in Plan	Strengths	Areas for Improvement	Insights
<p>I A. Mission Statement</p> <ul style="list-style-type: none"> • Represents the whole program and its stakeholders • Comprehensive • Concise • Values are identified and appropriate 			
<p>I. B. Program Scope</p> <ul style="list-style-type: none"> • Clarity in what the program’s focus is not • Clear statements about what the program does do (core aspects) • Clarifies the “gray areas” (misconceptions) 			
<p>I. C. Activities and processes</p> <ul style="list-style-type: none"> • Descriptive statements of how something transpires • Provides intent, direction, and connection • Identifies the key processes 			
<p>II A.1 and 2 Goals</p> <ul style="list-style-type: none"> • Specific • Are measurable • Have direction and magnitude • Represent a five-year timeframe 			
<p>II B. 1 and 2. Desired performance statements</p> <ul style="list-style-type: none"> • Concise • Understandable by multiple audiences (jargon free) • Provides context • Produces quality • Valued by multiple stakeholders 			
<p>III. A. Aspects of performance to measure</p> <ul style="list-style-type: none"> • Not too small • Not too large • Single dimension • Measurable 			
<p>III. B Means for gathering data</p> <ul style="list-style-type: none"> • Cost-effective • Reasonable • Timely • Captures performance information 			

Appendix B: Program Assessment Plan Template

Program Name:

Department:

Assessment Year: 2004 -- 2005

Plan Contributors:

Step One : Who are you and how do you do what you do?

I. A. *Mission Statement: (Who are you and what do you do?)*

I.B. *Scope of your program: (What are the boundaries of your program?)*

I.C. *What activities/processes contribute to the program? (How you do what you do?)*

Step Two: Where are you heading and what performances show your progress?

II. A. *What are your priority goals for the next five years (5-8 total)?*

1. *What do you want graduates to know? Be able to do? To believe?*

2. *What goals do you have for your program? (e.g. out of class experiences, advising, curriculum, faculty development)*

II. B. *What is the performance you desire to gauge your progress?*

1. *Student Learning Performances (outcomes)*

2. *Program Performances*

Step Three: Describe your methodology

II. B. 1 and 2 <i>Desired Performance</i>	III. A. <i>What aspects of the performance are critical to measure?</i>	III. B. <i>How (by what means) will you gather the data?</i>	III. C. <i>When will Assessment Begin?</i>	III. C. <i>Who is Responsible for What?</i>
1.	a.			
	b.			
	c.			
2.	a.			
	b.			
	c.			
3.	a.			
	b.			
	c.			
4.	a.			
	b.			
	c.			
5.	a.			
	b.			
	c.			

D. What additional resources will you need to complete your plan?

Appendix C: Bloom's Taxonomy of the Cognitive Domain

Bloom's map of the different levels of complexity in our thinking/learning process is a handy tool to use when writing student learning objectives. This taxonomy identifies action verbs to describe increasingly complex mental activities, although there is some debate whether synthesis and evaluation are co-equal rather than hierarchical. (adapted from Lion F. Gardiner, "Cognitive Levels: The Bloom Taxonomy" and the Program-Based Review and Assessment handbook of University of Massachusetts at Amherst)

<i>Cognitive Level</i>	<i>Examples of Performances</i>	<i>Additional Action Words</i>
Recall involves remembering, but not necessarily understanding	* States the name of the U.S. Presidents. * Labels the steps in the speech design process.	Define; identify; indicate; know; label; list, memorize, name, recall, record, repeat, select, underline.
Comprehension refers to the ability to grasp the meaning of material.	* Summarizes Plato's views on good and evil. * Paraphrases Freud's concept of "id".	Classify; describe; discuss; explain; express; identify; paraphrase; report; restate; review; summarize; translate.
Application is the ability to use learned material in new and different situations, to solve problems.	* Calculates the volume of a sample of gas. * Organizes a speech outline	Apply; construct; demonstrate; employ; illustrate; interpret; investigate; operate; organize;
Analysis is the ability to break down material into its component parts so its structure can be understood.	*Identifies the common themes in "Winesburg, Ohio." *Compares/contrasts national dominant cultural values.	Analyze; categorize; compare; contrast; debate; differentiate; distinguish; examine; inspect; inventory; relate; solve.
Synthesis is the ability to create something, to integrate ideas to form a new whole.	* Designs an experiment showing how elements of an ecological system depend on one another.	Arrange; assemble; compose; create; design; formulate; plan; produce; prepare; propose.
Evaluation involves judging the quality of something based on criteria	*Chooses the most efficient scheme of synthesis for an organic compound. *Evaluates the quality of Shakespeare's sonnets.	Appraise; assess, choose, decide, evaluate; grade; judge, rate; score; value.

Appendix D: Summary of Methods and Additional Assessment Resources

Aspects of Performance to Assess	Type of Data	Means	Who or What is analyzed?
Perceptions of campus climate Perceptions of learning Effectiveness of processes Educational Outcomes Attitudes Values	Self Reports	Focus Groups Interviews Phone Surveys Reflective Essays Surveys (homegrown or standardized) Classroom assessment	Alumni Employers Enrolled Students Faculty Graduating Seniors Entering Students Supervisors Parents Staff
Mastery and knowledge of principles and skills Value added	Achievement	Test Score Analysis Content Analysis Scoring Rubrics	Standardized tests Oral Thesis Defense Locally developed exams Select (embedded) questions on exams
Mastery of knowledge of principles Values Processes Value Added	Student Work	Content Analysis Scoring Rubrics	Capstone course products Homework Portfolios Presentations Performances Publications Research reports Term papers Videotapes
Attitudes Campus climate Interactions Processes Services Student Involvement Student Learning	Observations	Case Studies Peer Observations	Campus Events Classes Club Meetings Fieldwork sites Student Service Offices
Accuracy Consistency Efficiency Structure Processes	Campus Documents	Matrix of program courses and learning objectives Content Analysis Analysis of Forms	Administrative processes and documents Course Syllabi Student Transcripts

Appendix D: Assessment Resources

I. Direct Indicators of Learning

A. Capstone Course Evaluation

Julian, Faye D. "The Capstone Course as an Outcomes Tests for Majors." *Assessment in Practice*. Banta, Trudy W., Lund, Jon P., Black, Karen E., & Oblander, Frances W., (Eds). San Francisco: Jossey-Bass Publishers, 1996. pp. 79-81.

B. Course-Embedded Assessment

Student responses are evaluated by two or more faculty to determine whether or not the students are achieving the prescribed educational goals and objectives of the department. This assessment is a separate process from that used by the course instructor to grade the exam, report, or term paper.

C. Tests and Examinations (Commercially Produced Standardized Tests)

ACT - COMP (College Outcome Measures Program): This is an assessment instrument that measures knowledge and skills acquired by students in general education courses. Administered by ACT, Iowa City, IA.

GRE (Graduate Record Examinations): The GRE is widely used by colleges, universities, departments, and graduate schools to assess verbal and quantitative student achievement. Also, many discipline-specific examinations are offered to undergraduate students in areas such as Biology, Chemistry, Education, Geology, History, Literature, Political Science, Psychology, and Sociology. The GRE is published by Educational Testing Services, Princeton, New Jersey.

Major Field Achievements Tests: Major field examinations are given to students upon or near completion of their major field of study. These tests assess the ability of students to analyze and solve problems, understand relationships, and interpret material. Major field exams are published by Educational Testing Services, Princeton, New Jersey.

Kubiszyn, Tom and Borich, G. *Educational Testing and Measurement: A Guide for Writing and Evaluating Test Items*. Minneapolis, MN. Burgess Publishing Co., 1984.

Popham, W. J. "Selecting Objectives and Generating Test Items for Objectives-based Tests." In Harris, C., Alkins, M., & Popham, W. J. (Eds.) *Problems in Criterion-Referenced Measurement*. University of California, Los Angeles: Center for the Study of Evaluation, 1974.

Priestley, Michael. *Performance Assessment in Education and Training: Alternative Techniques*. Englewood Cliffs, NJ: Educational Technology Publishers, 1992.

Osterlind, Steven. *Constructing Test Items*. Boston: Kluwer Academic Press, 1989.

D. Portfolio Evaluation

Aubrey Forrest. *Time Will Tell: Portfolio-Assisted Assessment of General Education*. Washington, DC: AAHE Assessment Forum, 1990.

Belanoff, Pat & Dickson, Marcia. *Portfolios: Process and Product*. Portsmouth, NH: Boynton/Cook Publishers, 1991.

Black, Lendley. "Portfolio Assessment." In Banta, Trudy & Associates (Eds.) *Making a Difference: Outcomes of a Decade of Assessment in Higher Education*. San Francisco: Jossey-Bass Publishers, 1993. pp. 139-150.

Jones, Carolee G. "The Portfolio as a Course Assessment Tool." *Assessment in Practice*.

Banta, Trudy W., Lund, Jon P., Black, Karen E., & Oblander, Frances W. San Francisco: Jossey-Bass Publishers, 1996. pp. 285-287.

Portfolio News. Portfolio Assessment Clearing House, Encinitas, CA.

E. Pre-test/Post-test Evaluation

F. Thesis Evaluation

G. Videotape and Audiotape Evaluation of Performance

II. Indirect Indicators of Learning

A. External Reviewers

Fong, B. *The External Examiners Approach to Assessment*. Washington, DC: Association of American Colleges. 1987.

B. Student Surveying and Exit Interviewing

Lenning, O. Use of Cognitive Measures in Assessment. In Banta, T. W. (Ed.) *Implementing Outcomes Assessment: Promise and Perils*. *New Directions for Institutional Research*, no. 59. San Francisco: Jossey-Bass, p. 41-52.

Muffo, John A., & Bunda, Mary Anne. "Attitude and Opinion Data." In Banta, Trudy & Associates (Eds.) *Making a Difference: Outcomes of a Decade of Assessment in Higher Education*. San Francisco: Jossey-Bass Publishers, 1993. pp. 139-150.

Riess, R. Dean, & Muffo, John A. "Exit Interviews in Mathematics." *Assessment in Practice*. Banta, Trudy W., Lund, Jon P., Black, Karen E., & Oblander, Frances W. San Francisco: Jossey-Bass Publishers, 1996. pp. 129-131.

Staik, Irene M., & Rogers, Julia S. "Listening to Your Students." *Assessment in Practice*. Banta, Trudy W., Lund, Jon P., Black, Karen E., & Oblander, Frances W. San Francisco: Jossey-Bass Publishers, 1996. pp. 132-134.

C. Alumni Surveying

Converse, Jean M. & Pressler, Stanley. *Survey Questions: Handcrafting the Standardized Questionnaire*. Newbury Park. SAGE Publications. 1986.

Dyke, Janice Van, & Williams, George W. "Involving Graduates and Employers in Assessment of a Technology Program." In Banta, Trudy W., Lund, Jon P., Black, Karen E., & Oblander, Frances W. (Eds.) *Assessment in Practice*. San Francisco: Jossey-Bass Publishers, 1996. pp. 99-101.

Ewell, Peter. *Student Outcomes Questionnaires: An Implementation Handbook*. New York, NY: National Center for Higher Education Management Systems and the College Board. 1983.

McKenna, B. *Surveying Your Alumni: Guideline and 22 sample questionnaires*. Washington, DC: Council for Advancement and Support of Education.

D. Employer Surveying

Converse, Jean M. & Pressler, Stanley. *Survey Questions: Handcrafting the Standardized Questionnaire*. Newbury Park. SAGE Publications. 1986.

Dyke, Janice Van, & Williams, George W. "Involving Graduates and Employers in Assessment of a Technology Program." In Banta, Trudy W., Lund, Jon P., Black, Karen E., & Oblander, Frances W. (Eds.) *Assessment in Practice*. San Francisco: Jossey-Bass Publishers, 1996. pp. 99-101.

E. Curriculum and Syllabus Inventories

F. Transcript Analyses