



Academic Assessment Manual

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Assessment Overview

Assessment of student learning provides evidence of value in courses, programs, and degrees earned and promotes the ongoing process of continuous improvement. Assessment occurs on two levels:

- Program (including General Education)
- Course

To aid in this process, the Student Learning Assessment Team (SLAT), a faculty owned and driven committee, is responsible for oversight of academic assessment procedures and expectations for the College. The committee assigns the Vice President for Instructional Services the authority to implement and enforce these policies and procedures.

Program Assessment

At the Program level, each academic program (degree or certificate) has stated Program Learning Outcomes (PLOs) which identify knowledge and skills program graduates are expected to acquire by progressing through the program's courses. These courses are mapped on each program's Curriculum Map to help ensure this successful progression. The effectiveness of a program and its graduates is dependent upon the acquisition of these skills; therefore, ongoing assessment of PLO's promotes continuous improvement within a program.

Each fall programs select two critical PLOs for assessment and, for each, establish targets, measures (two direct and one indirect), and intended course section sampling which are submitted to SLAT. Throughout the year, instructors collect the identified data from program majors. At the end of the spring semester, programs compile all PLO data in the Annual Program Assessment template. Programs use this template to document and analyze collected data and create action plans for improvement (as needed). PLOs with action plans in progress are carried over from year to year.

General Education Assessment

Definition:

General Education assessment considers broad student learning outcomes that apply to all students who graduate from GCCC and fulfill the mission statement of Garden City Community College: "Garden City Community College exists to produce positive contributors to the economic and social well-being of society." As these skills are essential for all learned persons, they cut across all disciplines and majors as well as co-curricular activities. Garden City Community College's Board of Trustees has approved the five Essential Skills — Critical Thinking, Diversity, Oral Communication, Social Responsibility, and Written Communication—as our institutional ends (institutional outcomes), and GCCC faculty have adopted the Essential Skills as our General Education outcomes.

Statement of Purpose:

Comprised of the fundamental outcomes of a GCCC education, the General Education program's outcomes represent accumulated skills (Essential Skills) one gains from his or her time spent at GCCC rather than a core set of shared courses. While these skills are shared across all majors and disciplines, the presentation of them varies as each discipline has respective expectations for each skill. For example, all students should be able to think critically but critical thinking is expressed differently for nurses, physicists, welders, etc. Therefore, while the core curriculum often serves to introduce and reinforce these essential skills, the mastery and assessment of them occurs within each program's courses specifically as majors apply the essential skills within their chosen discipline.

As a whole, General Education is assessed like any other program at GCCC with the Essential Skills functioning as the General Education PLO's. SLAT completes the Gen Ed Annual Program Assessment Report, including all five Program Learner Outcomes each year. By assessing these five skills, GCCC works to ensure that students acquire the foundational skills promised by the institution. The Essential Skills' definitions and corresponding rubrics are available in Appendix 2.

Course Assessment

At the Course level, instructors assess students' acquisition of Student Learner Outcomes (SLOs) which specify knowledge and skills students should be able to demonstrate at the end of the course. Departments adopt SLOs for the courses in their programs; in many cases, SLOs are provided by a governing body such as KBOR or an external accrediting body. The purposes of course-level analyses are to determine whether most students are reaching satisfactory levels of achievement on the SLOs assessed; to discover whether there are any meaningful trends in the distribution of student achievement; identify further information the program may wish to gather to more fully explain those trends; and understand why the results were obtained in order to take action to improve student learning.

At the beginning of each semester, instructors of a course collaboratively identify two to three SLOs to be tracked along with their targets and measures. These selections are submitted to SLAT. Throughout the semester, instructors individually collect data for all students enrolled in the course. At the end of each semester, instructors complete the Semester Course Assessment, first individually and then collaboratively with all instructors who teach the same course. Individual assessment allows instructors to focus on their specific pedagogy and classroom factors. Collaborative assessment allows instructors to consider their own student success amongst that of their peers and encourages cooperative learning to enhance educational opportunities for students as well as develop a cohesive analysis of student data wherever possible. Faculty members are encouraged to share their findings as a program and division, identifying trends and needs that impact program- and institution-level outcomes. These analyses are used to form actions plans. Completed Semester Course Assessments are submitted to SLAT prior to the start of classes the following semester.

Garden City Community College Annual Learning Assessment Calendar	
August	<ul style="list-style-type: none"> - VPI/SLAT announces any changes to assessment policy or procedures for coming year - Collaborative Course assessment reports from previous spring due

	<ul style="list-style-type: none"> - Instructors make course and program assessment plans for the academic year
August-September	<ul style="list-style-type: none"> - Gen Ed assessment plans created - previous year's Gen Ed Report presented to GCCC
December (last faculty work day)	<ul style="list-style-type: none"> - Individual course assessment reports for the Fall semester are completed for full-time and adjunct faculty - Program assessment plans are updated with any mid-year data - Gen Ed (Essential Skills) reports for fall semester are due
Jan.	<ul style="list-style-type: none"> - Collaborative Course Assessment reports are due - Spring Course Assessment Plans are due - Annual Program Assessment Plans are reviewed and communicated to Spring semester instructors - Gen Ed (Essential Skills) assessment plans are reviewed and communicated to Spring semester instructors
Feb.	previous year's Gen Ed Report presented to BoT
May (last faculty work day)	<ul style="list-style-type: none"> - Individual spring Course assessment reports are due - Annual program assessment reports are due - Gen Ed (Essential Skills) reports for Spring semester are due
June-July	<ul style="list-style-type: none"> - SLAT compiles Gen Ed data and reports on previous year's assessment activity and findings; recommends to VPI changes and improvements in assessment policy and procedures

Assessment Background

What is assessment?

The Merriam Webster online dictionary offers two definitions of *assessment*: the amount a person is officially required to pay for taxes or fees; and the act of making a judgment about something. The latter meaning is used in so many ways that it can become confusing. We talk about classroom assessment, psychological assessment, career assessment, and others. We also use terms such as evaluation or testing to mean some of those same things.

Academic assessment is used by faculty to study whether students have mastered the intended learning outcomes for a course, degree or certificate program.

Non-academic assessment is used by staff to study how effectively administrative units perform their intended functions. Non-academic units are the various offices that perform administrative and student support functions. Those include admissions, human resources, facilities, security, accounting, advising or tutoring, and more. Non-academic units also include top-level administrative divisions such as student affairs or business affairs, within which multiple administrative or co-curricular units are housed; academic administrative offices such as the department or dean's office and the chief academic officer's office; and even the president's office. The president and vice-presidents drive much of their subordinate units' ability to meet objectives, so it is equally important for them to evaluate their effectiveness.

Co-curricular assessment is used by student support professionals and others to study students' learning that occurs as part of activities outside of the classroom. The lines between non-academic and co-curricular assessment may seem blurred for some units. Many administrative units, such as payroll, may not work with students; their assessment work will focus entirely on

the effectiveness of their administrative functions. The library, for example, has both administrative and co-curricular functions. They manage physical and online collections and support student learning on research and use of information resources. Some administrative units that do not directly support student learning may employ student workers whose jobs provide learning opportunities related to communication skills, information technology, etc. These units might consider assessing the student workers' on-the-job learning. Co-curricular activities and programs may be led by faculty or staff, but many student-led activities and organizations provide learning activities for students and should have stated learning outcomes.

Program review is related to assessment and involves comprehensive evaluation of an academic department, a set of related degrees, or an administrative unit to measure overall quality and effectiveness and to decide whether a program or unit should be retained, modified, or eliminated. Program review includes assessment information but includes other information as well. Assessment should occur on an annual cycle. Program review occurs over a longer cycle, typically every five years. The Office of Institutional Effectiveness and Accountability oversees Program Review while SLAT oversees semester and annual assessment processes.

Assessment and program review are important components of *institutional effectiveness*, a set of systematic processes by which an institution evaluates itself on how well it is achieving key performance indicators in support of the institutional mission and strategic goals. The following important points are shared by all institutional effectiveness processes.

1. They must be used to promote *continuous improvement* in student learning (academic programs and co-curricular departments), in effectiveness (non-academic and co-curricular departments), and in achievement of institutional and unit-level objectives—all of which ultimately support student success.
2. The information derived from those processes must be used to drive *planning and decision making* at the program, unit, division, executive, and institutional levels.
3. Assessment is not a periodic activity with a beginning and end. It is continuous and ongoing; each cycle provides information from the previous cycle while informing decisions and activities in subsequent cycles.

Assessment, when done well, occurs within the normal course of the academic cycle. It is not meaningless and time consuming work done solely to satisfy administrative requirements.

Why do we do assessment?

Continuous improvement of student learning in all programs is an important priority for educators who want to do everything possible to prepare graduates for success in life, in work, and in their further educational endeavors. Assessment planning and reporting allow faculty to report the specific learning outcomes they desire for their students, to collect solid evidence of how well those outcomes have been achieved, and to implement the actions necessary to improve student learning over time.

Assessment is required to receive and maintain institutional and specialized program accreditation. The Higher Learning Commission, other regional accreditors, and many

specialized professional accreditation bodies place a heavy emphasis on the assessment of student learning. They also emphasize the use of assessment information to drive programmatic changes, pedagogical changes, and institutional planning and decision making—all intended to yield continuous improvement in student learning. Assessment is at the core of Criterion Four of HLC’s *Criteria for Accreditation* and appears in other Criteria.

Who must participate in assessment?

All academic programs—majors and certificates, undergraduate, graduate, and professional—must complete the assessment process on an annual basis. For assessment purposes, an academic program is an individual degree or certificate program. We may refer to the “English program,” for example, when we are speaking about all the degree or certificate programs housed within the English department. Rather than completing a common assessment plan and report for the English *department*, it is necessary to complete separate documents for each distinct *degree* and *certificate* within the department. This means some departments will have multiple Annual Program Assessments *every year* (one for each certificate and degree in the department).

In the sections that follow, we will guide you through the preparation of an assessment plan for a single academic program, then illustrate the ways in which faculty might use the assessment data.

Our programs have external accreditations, and they already evaluate our assessment. Is it necessary for us to participate in the institutional assessment?

Yes. Although most specialized accreditors now require evidence that programs are measuring student learning, some still do not. We are still accountable to our institutional accreditation body for the assessment of student learning. There are some specialized accreditors that require programs to engage in the assessment of student learning but are not prescriptive about how that should occur. Such agencies rely on the programs to participate in their institutional assessment activities and to document the evidence of those activities. You should review the assessment standards for your specialized accreditations and consult with your faculty to ensure that your assessment work will satisfy those expectations as well as institutional expectations. Be sure to contact SLAT with any questions. Aside from any accreditation-related requirements, please remember that the underlying purpose of assessment is the continuous improvement of student learning in all our academic programs.

Faculty already evaluate students, and students already evaluate faculty. Isn’t this more of the same thing?

No. The purpose of academic program assessment is not to evaluate individual students or instructors. The purpose is to determine the extent to which students possess the intended knowledge and skills of the program when they graduate and to use the information gathered to support improvement over time.

Will we be penalized if we do not meet all our outcomes?

No! Assessment offices do not tally the number of outcomes met or report the numbers to administrators, governing bodies, or accreditors. We do, however, track the submission and quality of assessment documents. We provide feedback to faculty on whether their assessment practices are likely to provide meaningful information about student learning that can be used to make improvements. This is so important that programs that identify simplistic outcomes, weak measures, and unreasonably low targets receive lower ratings than those that set reasonable

expectations, acknowledge when outcomes have not been met, and identify realistic changes to address any issues they identify.

Administrators at many institutions rely on assessment information during the budget planning process to drive decisions about the allocation of funds. Programs whose budget requests clearly connect evidence about student learning to action plans aimed at improvement are more likely to receive requested funding than those who do not. Accreditors do not judge the number of outcomes we meet but do expect evidence that we actively engage in honest assessment of student learning and use the information to drive decision-making aimed at continuous improvement. This does not mean programs will be penalized or eliminated if outcomes are not met. It does mean that we must set ambitious but attainable targets for improvement from year to year and take reasonable steps to hit those targets.

We are not “graded” on the number of objectives we meet but on our efforts to collect meaningful information about effectiveness and student learning and then use that information to drive improvement.

Who is responsible for assessment?

Faculty have the primary responsibility for all assessment activities. Assessment staff guide and support the process, support personnel may assist with some activities, and adjunct instructors should play a role. It is important, however, that the faculty who are responsible for the curriculum also identify program learning outcomes, measures, and targets for student performance, and also make any pedagogical or curricular decisions that arise from the analysis of assessment data.

Continuous Improvement

What is continuous improvement?

Continuous improvement is a philosophy that drives successful organizations. It is the ongoing effort to improve through the implementation of small, incremental changes that are identified by employees rather than by management or the research and development team. Improvements may be related to the quality of products or services, efficiency in manufacturing or delivery of goods and services, customer satisfaction, or any area important to the organizational mission.

Continuous improvement focuses primarily on ideas for small changes that can be easily implemented, often at minimal cost. Most ideas will come from faculty or staff rather than administration and involve minor changes to improve instruction, efficiency, or customer service to faculty, staff, and students. Although large scale change that is implemented all at once can be desirable and yield valuable results, it can be counterproductive to focus improvement efforts solely on large improvements. The narrow focus on large scale change can pull individual and organizational attention away from the smaller, more immediate changes that can add up to significant improvement over time.

Walt Disney coined the term “plussing” in the early 1950s as Disneyland was being designed. He asked his engineers, or Imagineers as he called them, to always push a little further with each new idea and “plus it” to identify a way to make it even better. A variant of plussing practiced by McDonald’s in the 1980s was used to train employees to always watch for small

improvements they could make in their areas. The belief is that many small changes can add up to substantial improvements. The processes outlined in this handbook are similar to those used in corporate continuous improvement models but modified for higher education. Keep in mind that continuous improvement is not a series of discrete steps used to generate information for an annual report. It is a way of thinking about how we work and how small changes yield success.

What does continuous improvement have to do with assessment? The notion of using the principles of continuous improvement in higher education first appeared in the literature around 1990. During that time, major corporations were using Total Quality Management (TQM), an earlier term for continuous improvement, to enhance the quality of accountability of postsecondary education in the U.S. In 1992, IBM awarded \$3 million grants to nine colleges to use TQM principles to improve teaching and research and to adopt TQM principles in all operations (*9 Colleges Receive Grants, 1992*). Since then, increased emphasis on continuous improvement by accrediting agencies, governing bodies and grant sources has made it necessary for institutions to incorporate these practices into all facets of their operations.

At about the same time that continuous improvement principles were introduced into higher education, increase accountability by institutions for students' learning was also gaining attention from the public, the federal government, and accreditors. The expectation that institutions will use data about student performance to make improvements was introduced and has since been at the core of how we are expected to demonstrate that students acquire the knowledge and skills associated with the programs from which they graduate.

How can you practice continuous improvement in your assessment activities? As you work through the exercises in this handbook, you will learn a series of small steps that will form the foundation of your assessment practice. At each step, begin to think about how your program supports the institutional mission, how your outcomes and measures provide information about student learning and how to improve student learning.

When the Disney Imagineers would present an idea during the design team meetings, Walt Disney would ask, "Did you plus it?" As you work through each exercise in this handbook, stop for a moment before moving on and ask yourself "Did I plus it? How can I tweak this *just a little* to make it even better?" In the normal course of your work, think about how to implement the little ideas that come to mind. How can you make small improvements along the way?

Many small improvements by many people lead to substantial improvements over time.

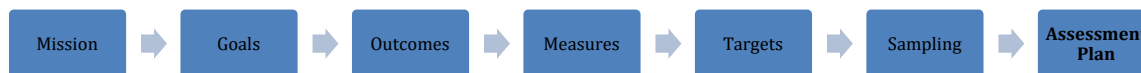
Step One: Plan Assessment

The assessment planning stage is the most time-consuming of the process, but good planning is a necessary foundation. Think of the assessment plan as the design and data collection plan for a small, but important, study that you will conduct over the course of a single academic year and then replicate in future years. Your investment of time at the beginning to design a high-quality assessment plan will ensure that you collect data that will yield useful information about student learning and how it can be improved.

You will complete an initial assessment plan now and update the plan each year when you submit your assessment report. This connects the results from the previous cycle to changes

planned for the new cycle. It also coincides with the budget planning process for the next fiscal year. As new programs are created, remember to complete assessment plans for them and include them in the cycle.

Six components of an assessment plan



Each component builds upon the previous one, so be sure to create them in the correct order.

Let's begin writing our assessment plans together. The exercises that follow will include examples for the Baker State University B.S. in Justice and Policy Studies (JPS) degree. There is space after each JPS example for you to complete the same exercise for your program.

ANALYZE PROGRAM MISSION

It is important to consider the institutional, department, and program mission statements in the assessment planning process. There are several reasons for this:

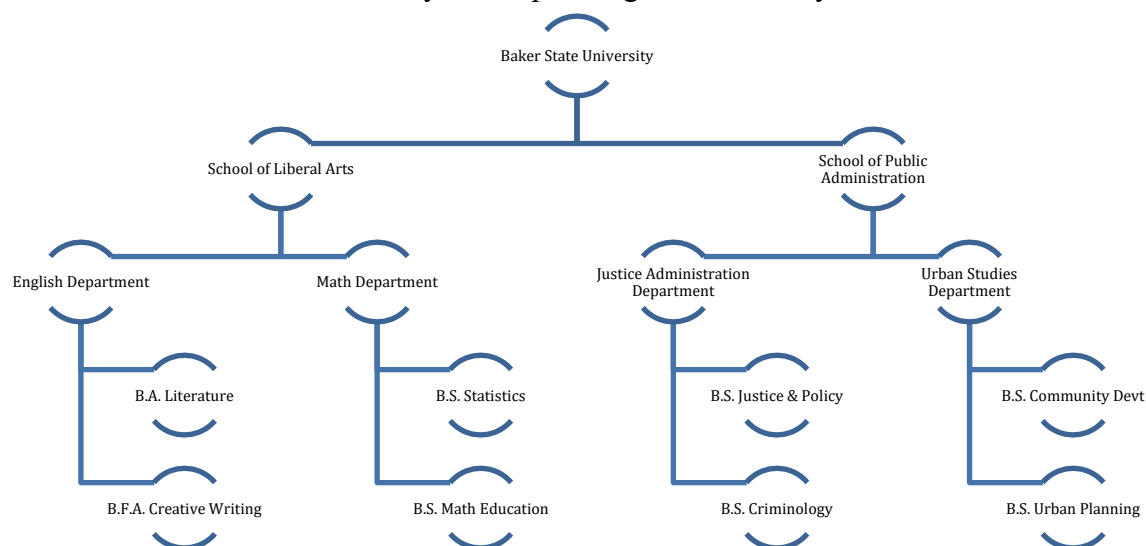
1. The institutional mission is the foundation upon which everything we do is based. Departmental mission statements, and in turn program mission statements, should flow from and directly support the overall institutional mission. It should not be difficult to "connect the dots" and see the relationships between an institution and the academic and non-academic units that compose it.
2. Accreditors will evaluate how well an institution executes its mission through its academic programs and other endeavors.
3. Because it can be easy to forget the importance of institutional, department, and program missions in all that we do, assessment planning time provides an excellent opportunity to call our attention back to these statements of who we are and what we are about. This may prompt some faculty to review department or program mission statements and consider if it is time to update them. That may, in turn, prompt fresh thinking about curriculum planning or other activities. Although this is not the primary purpose of assessment planning, it is one example of the unexpected benefits that some faculty report as a result of the process.
4. The program-level learning goals and outcomes for assessment plans must be directly related to the program mission (and, by extension, those of the department and institution). You will evaluate these relationships as we prepare to develop outcomes.

The assessment office does not evaluate mission statement quality nor do we evaluate the strength of the relationships among them or the programs being assessed. We typically collect this information only to help our faculty to focus on the issues outlined above.

The first step in preparing an assessment plan is to determine whether the program mission supports the institutional mission. We do that by reviewing the mission statements for each unit within the organizational hierarchy that houses the program. It is not necessary for the mission statement of each college, school, department, or program to exactly match the institutional

mission. If we were to review the mission statements of every academic and non-academic unit within any institution, we would likely find that each unit places particular emphasis on those parts of the institutional mission that are related to its specific purpose and function and that, across the board, the combination of various units supports the institutional mission.

The organizational structure of Baker State University's academic programs is shown in the graphic below. In Exercise 1, we review the mission statements for the University, the School of Public Administration, the Justice Administration Department, and the Justice and Policy program. Pay attention to the line from the University, through the School and Department, to the JPS program. At each stage of our assessment planning work, we check that our work directly supports the previous stage. This helps focus on the specific program we're working on and ensures the final assessment plan is aligned with the purpose of the organizational hierarchy in which it serves. In other words, we should be able to review any part of the assessment plan and "connect the dots" all the way back up through the hierarchy to the institution's mission.



Example: What program will you work on today?

Enter the program name: B.S. in Justice & Policy Studies

Your Turn: What program will you work on today?

Enter the program name: _____

Baker State University Mission Statement: The mission of Baker State University is to provide a high quality education, with a strong emphasis on teaching excellence, research, and services to our local, regional, national, and international communities.

School of Public Administration Mission Statement: The School of Public Administration (SPA) prepares students for public service careers in the not-for-profit and public sectors. The School strives to uphold the highest ideals of ethical and responsible public service and seeks to produce public leaders and managers who will exemplify those values in their professional practice. The administration and faculty of the School are committed to teaching, research, and social engagement that support and serve our local, regional, national, and global communities.

Department of Justice Administration Mission Statement: The Department of Justice Administration (JA) prepares students for professional careers in the criminal justice, social

justice, and other law-related fields. The JA department provides students a comprehensive and multidisciplinary education in social, behavioral, historic, legal, and administrative aspects of the American system of justice. At the core of each JA academic program is study and application of ethics-based decision making so that graduates are prepared to serve as ethical and responsible practitioners and leaders at the local, regional, or national levels in their chosen careers.

Bachelor of Science in Justice and Policy Studies Program Mission Statement: The mission of the BS in Justice and Policy Studies program is to educate the justice system's future leaders, policy makers, and practitioners. The BS JPS program provides a high-quality education in the history and foundations of the American system of justice as well as the current legal, social, ethical, and administrative skills necessary in an increasingly complex society. BS JPS graduates are prepared for further study at the graduate level or in law school or for employment in the justice profession as researchers, administrators, or law enforcement officers.

Exercise 1: Example: Review your mission statements

Does the School of Public Administration Mission Statement support the BSU Mission?

We believe that the SPA mission statement supports the BSU mission. It closely matches the emphasis on "service to our local, regional, national, and international communities." The SPA mission also emphasizes a commitment to teaching and research, which are part of the University's mission.

Note: as I responded to this question, I also underlined the relevant phrases in the BSU mission.

Does the Justice Administration Department mission statement support the School of Public Administration mission statement?

The JA mission statement supports the SPA Mission Statement very well. It specifically mentions preparation of students for public and non-profit careers, emphasis on ethical standards, and a goal of producing ethical and responsible public leaders and service to the local, regional, national, and global communities.

Note: as I responded to this question, I also underlined the relevant phrases in the SPA mission. The JA mission seems to give greater emphasis to some elements of the SPA mission than to other elements. That's OK; remember that if you review the mission statements of the other departments in the School of Public Administration, you'll probably find that each one gives particular emphasis to those mission elements most related to the department's specific purpose. You will also expect to find that, overall, the SPA departments support the SPA mission.

Does the BS in Justice and Policy Studies Mission Statement support the JA Department Mission Statement?

The BS JPS Mission Statement supports the elements of the JA Mission Statement very well. It refers to the study of the American Justice system, ethics, and preparation for graduate study or employment in a variety of related fields. Some areas that are not specifically stated in the program mission statement can be inferred, however.

Note that as I responded to this question, I also underlined the relevant phrases in the JA mission. The JPS mission seems to give greater emphasis to some elements of the JA mission than to other elements. That's OK; remember that if you review the mission statements of the other programs in the JA department, you'll probably find that each one gives particular

emphasis to those mission elements most related to the program's specific purpose. You will also expect to find that, overall, the JA program supports the SPA mission.

Exercise 1: Your Turn: Review your mission statements

Take a minute to review the mission statements for your institution and for your department. Do you believe that your department's mission statement supports the institutional mission statement? Very well? Somewhat? Not very well? You may want to underline or mark up those parts of the institutional mission statement that you believe are supported by your department's mission statement. Use the space below to record your thoughts about how the well institutional mission statement and your department's mission statement, and any gaps you noticed. For your reference, higher level mission statements are included below.

GCCC Mission Statement

Garden City Community College exists to produce positive contributors to the economic and social well-being of society.

GCCC Academic Mission: The mission of the Academic programs at GCCC is to prepare students for further study, develop academic skills that enrich the students and their communities, and produce ethically and economically conscious members of society.

GCCC Technical Mission: The mission of the Technical Education programs at Garden City Community College is to improve and enrich lives by encouraging individual success in the workplace and in higher education for the communities it serves; to develop socially responsible individuals ready to meet the workforce challenges of today; and to promote quality instructional partnerships with business, industry, and the community.

Your Department's Mission Statement:

Does your department's mission statement support the institutional mission statement?

Return to the department mission statement and underline or mark up those parts that are supported by your program mission statement. Do you believe that your program mission statement supports your department's mission statement? Very well? Somewhat? Not very well? Use the space below to record your thoughts about the relationship between your department's mission statement and your program mission statement, and any gaps you noticed.

Does your program mission statement support your area's mission statement?

Does your program mission statement support your department's mission statement?

If you are unsatisfied with the degree to which any of your mission statements support those above them, you may want to initiate a later conversation with your colleagues.

LONG TERM GOALS

What do you want your students to be when they grow up?

Based on the mission of the program, what hopes and aspirations do program faculty have for program graduates three to five years after graduation? Some examples are:

- Further academic study (completion of baccalaureate after transfer from community college, admission to graduate/professional school)
- Employed in field of study
- Professional licensure/certification
- Contribution to scholarship of the discipline (research, publication, teaching)

We use program goals to help frame our thoughts about our expectations for our students. This will help as we write learning outcomes in the next step. Because the goals support the program mission, we also ensure that the learning outcomes directly support the department and institutional missions.

For most programs, faculty will have two or more goals for their program graduates. For undergraduate programs, in particular, there are many possible educational and career paths that graduates will follow. You do not need to identify all possible paths; a small number will suffice.

It isn't necessary for you to be able to track students in order to identify these long range goals. Some programs may choose to track their alumni, but that is not necessary for this step. Don't worry about using "rules" about learning outcomes. The purpose of this exercise is only to help you to start thinking about the outcomes we will soon develop.

Program goals should reflect long-term student outcomes, achievements, and successes rather than programmatic inputs. Consider this example. The faculty in a professional degree program determine that one of the program goals is for graduates to obtain licensure in the professional field of the discipline. The goal statement for that program would be, "Program graduates will obtain the _____ license." A statement written as a programmatic input might say, "Our program trains students to be licensed _____."

Goals do not have to be measurable or trackable. Their only purpose is to help you identify outcomes.

Exercise 2: Example: Write program goals

Draft two or three program goals

Program graduates will be employed as effective and ethical law enforcement officers or administrators.
Program graduates will be admitted to graduate school or law school.
Program graduates will be employed in government or non-profit agencies that serve the criminal justice profession.

Review your program mission statement and underline those elements that are supported by the program goals above. If the goals you wrote do not support the program mission statement, take a moment to revise your program goals. It is not necessary for each goal to support all elements of the mission, but you might find that individual goals support more than one element. If there are parts of your program mission that do not have goals associated with them, you should identify additional goals to ensure adequate coverage of the program mission.

Are the goals above written as long-term student outcomes rather than programmatic inputs? If not, revise the statements to focus on student outcomes, achievements, and success.

Review and revise the goals above, as needed.

No revisions were necessary.

Choose one program goal from the list above that you will use for today's work.

Our program goal for the BS JPS program is "Program graduates will be employed as effective and ethical law enforcement officers or administrators."

Exercise 2: Your Turn: Write program goals

Draft two or three program goals.

Review and revise the goals above, as needed.

Choose one program goal from the list above that you will use for today's work.

You may decide to use the other program goals as you develop your full assessment plan. You may also decide to revise the list or add other program goals not listed above.

In the next section, we will begin to develop program-level learning outcomes. We will look at two different methods. The first method is a traditional approach to writing learning outcomes, similar to what you have probably encountered before. The second method is a more recent approach that represents updated thinking about student learning and offers considerable richness and depth compared to the traditional approach. Either method is appropriate. Generally, the

recommendation is that institutions adopt one method or the other for all programs, but you are free to use either or both as you choose.

OUTCOMES METHOD 1: TRADITIONAL

Introduction

Think about the program goal you developed in the previous step. What kinds of knowledge or skills will students need to have when they graduate in order to achieve this goal? Those are your program learning outcomes. Program outcomes are the intended learning outcomes of an academic program. They are the answers to Assessment Question 1: “What should program graduates know and be able to do?” Ask yourself, “In order to do that (the goal) ‘out there,’ what do they need to get ‘in here’?”

Many people find that developing learning outcomes for assessment plans is the most difficult and time consuming part of the process. If you follow the guidelines, it will become much easier with practice, and you will avoid problems with the subsequent steps. The time you invest now will save time later and will ensure that you are able to collect useful assessment data. If you find that you are spending a large amount of time or becoming frustrated, you have let it become far more difficult than it needs to be. It’s time to stop and review this section of the handbook or ask for help from SLAT..

Outcomes for different academic levels

Are program outcomes for community college, baccalaureate, and graduate programs different? What about certificates and degrees?

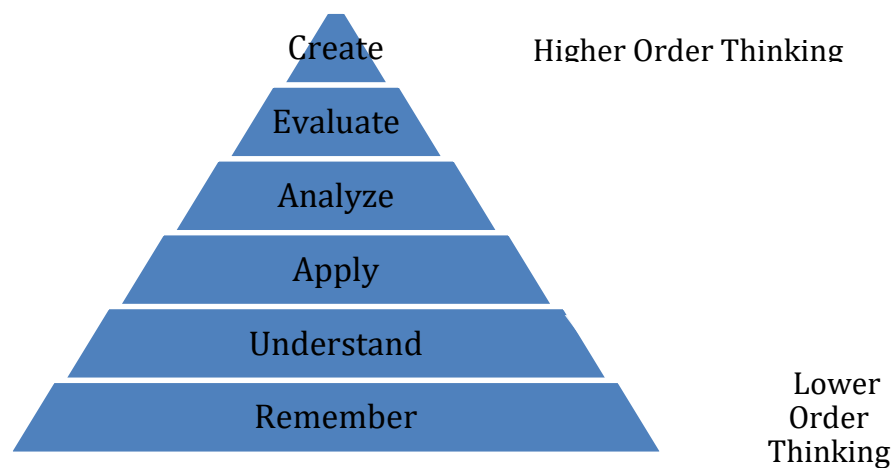
The choice of program outcomes for your assessment plans should always be guided by the program mission and long-term goals of your graduates. In most cases, you would not have the same outcome for programs at different academic levels. The credit requirements and work required will vary from one program level to another. The Higher Learning Commission requires institutions to demonstrate that they “articulate and differentiate learning goals” for programs and certificates at various levels. Other accreditors will have a similar requirement.

However, there may be times when program faculty believe a specific learning outcome is appropriate for both an associate degree program and a baccalaureate program or for a baccalaureate program and a graduate program, yet understand the need to differentiate between the levels. Here are some options:

- Modify the wording of the outcome to reflect different cognitive levels for associate and bachelor’s and graduate program outcomes. For example, you might define a community college outcome at Bloom’s comprehension level, a bachelor’s outcome at the analysis level, and a graduate outcome at the evaluation level. The action verbs on page 18 are associated with the cognitive domain levels of Bloom’s taxonomy. This list can help you choose a verb for an outcome or to revise an outcome from one associated with lower order thinking skills into one associated with higher order thinking skills. It is not an exhaustive list of verbs and is offered only as a reference. There are similar lists available on the internet. Feel free to refer to those, but be careful—some include verbs such as *understand* or *demonstrate* that you should avoid.

- Use the same outcome for two programs but use different measures for the programs. You could use multiple choice exam items or a short constructed response question for an associate program, an in-depth constructed response question for a bachelor's program, and a complex project or comprehensive exam question for a graduate program.
- Use the same outcome and measure for two levels but use different scoring rubrics. For example, you might develop a complex test question for a final exam in an undergraduate capstone and for a master's level comp question. Because you expect more complexity and sophistication in your master's students' responses, you would use different scoring rubrics for students at the two levels. Or you could use the same rubric and set different targets for performance that reflect the different expectations you have for students' performance.

Bloom's Taxonomy (Cognitive)



Action words for levels of Bloom's Taxonomy					
Lower Order Thinking Skills			Higher Order Thinking Skills		
Remember	Understand	Apply	Analyze	Evaluate	Create
define	ask	act	advertise	appraise	adapt
describe	associate	administer	analyze	argue	anticipate
discover	cite	apply	appraise	assess	arrange
duplicate	classify	articulate	break	choose	assemble
enumerate	compare	calculate	calculate	compare	choose
examine	contrast	change	categorize	conclude	collaborate
identify	convert	chart	classify	consider	collect
label	describe	choose	compare	convince	combine
list	differentiate	collect	conclude	criticize	compile
listen	discuss	complete	connect	critique	compose
locate	distinguish	compute	contrast	debate	construct
match	estimate	construct	correlate	decide	create
memorize	examples	determine	criticize	defend	design
name	explain	develop	deduce	discriminate	develop
observe	express	dramatize	devise	distinguish	devise
omit	extend	employ	diagram	editorialize	express
quote	generalize	establish	differentiate	errors	facilitate
read	give	experiment	discriminate	estimate	formulate
recall	group	explain	dissect	evaluate	generalize
recite	identify	illustrate	distinguish	find	hypothesize
recognize	illustrate	interpret	divide	grade	imagine
record	indicate	interview	down	judge	infer
repeat	infer	judge	estimate	justify	integrate
reproduce	interpret	list	evaluate	measure	intervene
retell	judge	manipulate	experiment	order	invent
select	order	modify	explain	persuade	justify
state	paraphrase	operate	focus	predict	make
tabulate	predict	paint	illustrate	rank	manage
tell	relate	practice	infer	rate	modify
visualize	report	predict	order	recommend	negotiate
	represent	prepare	organize	reframe	organize
	research	produce	out	score	originate
	restate	record	outline	select	plan
	review	relate	plan	summarize	prepare
	rewrite	report	point	support	produce
	select	schedule	prioritize	test	propose
	show	show	question	weigh	rearrange
	summarize	simulate	select		reorganize
	trace	sketch	separate		report
	transform	solve	subdivide		revise
	translate	teach	survey		rewrite
		transfer	test		role-play
		use			schematize
		write			simulate
					solve
					speculate
					structure
					substitute
					support
					test
					validate
					write

How many outcomes?

General guidelines suggest that certificates have 2-3 Program Learning Outcomes while degrees have 5-7. Please note that certificate PLOs can also be used as degree PLOs if the certificates “stack” into those related degrees. These will probably not be all possible outcomes for the program, but should reflect the primary things that program graduates should know and be able to do. You will be able to modify this list in subsequent years if necessary. Plan to assess only two or three outcomes each cycle and think about how to rotate among them all. There are several ways to rotate among outcomes. Some examples are

- follow a predetermined rotation each year;
- identify one or two core outcomes that will be assessed every year and rotate among the others each year;
- identify one or two core outcomes that will be assessed every year and assess one or two others that are related to recent programmatic changes that should be evaluated;
- identify a subset of outcomes, repeating those that are not met and replacing those that are met with new outcomes; or
- group the outcomes into categories such as content knowledge, application, research, communication, clinical skills or others. Select one outcome from each category during each cycle.

Outcome areas to consider

Some examples of broad knowledge and skill areas are shown in the table below. This is not an exhaustive list; you may identify others that are appropriate for your academic discipline.

Knowledge	Skills		
Theory Content Knowledge	Analysis Application of theory/knowledge Clinical skills Creativity Critical thinking	Ethics Design skills Leadership Oral communication Problem solving Research methods	Team participation Technical skills Written communication

If you want to include outcomes that may seem ambiguous or difficult to measure, consider using Association of American Colleges & Universities (AAC&U) Valid Assessment of Learning in Undergraduate Education (VALUE) rubrics. The rubrics were developed as part of a large FIPSE-funded project. More about the project can be found at <https://www.aacu.org/value/rubrics>. The rubrics can be downloaded, free of charge, from the AAC&U website. Rubrics are available for the following outcomes:

Intellectual & Practical Skills	Personal & Social Responsibility	Integrative & Applied Learning
Inquiry and analysis Critical thinking Creative thinking Written communication Oral communication Reading Quantitative literacy Information literacy Teamwork Problem solving	Civic knowledge/engagement (local & global) Intercultural knowledge & competence Ethical reasoning Foundations & skills for lifelong learning Global learning	Integrative & applied learning

Level 1 Outcomes: Brainstorming

The following brainstorming exercises will break the process of writing outcomes into several small steps. Although we will spend the next hour or two writing our first outcome, the process will be much faster when you write your other outcomes.

Review the long-term program goals you selected for today's work and think about the knowledge and skills necessary to prepare your students to achieve that goal. Keeping that program goal in mind, use sticky notes or scraps of paper to jot down as many knowledge areas or skills as you can think of. *For now, don't think about any rules about writing learning outcomes—we'll get to the rules later.* Don't put a lot of thought into this—just get your ideas down as fast as you can. Remember: this is a brainstorm.

Let's start by reviewing our long-term goal for BS JPS graduates: *Program graduates will be employed as effective and ethical law enforcement officers or administrators.*

That is a very large goal. In order for program graduate to become effective and ethical officers or administrators, they will need to possess considerable content knowledge by the time they graduate. They should also have acquired at least some of the basic skills they will later use in their professional lives.

It helps to begin by brainstorming about the many possible knowledge areas or skills that students should acquire prior to graduation. There are several possibilities for the BS JPS goal.

- Knowledge of organizational management
- Knowledge of social factors related to crime
- Empathy for others
- Knowledge of criminal law

After you've brainstormed and written down as many knowledge areas or skills for your goal as you can, take a minute to review the examples of knowledge and skills areas on page 19. Does this give you more ideas that you want to add to your collection of sticky notes? If so, write those down. For the BS JPS program, there are several knowledge/skill areas to consider.

- Knowledge of organizational management
- Good report writing skills
- Knowledge of personnel management
- Good verbal communication skills
- Design programs to address crime problems
- Knowledge of constitutional law
- Ability to apply ethical standards
- Knowledge of public administration
- Knowledge of social factors related to crime
- Ability to write policies

Rearrange your sticky notes into groups or clusters that are at least somewhat related to one another. You may identify areas of content knowledge that are closely related. You may realize that some sticky notes represent subsets of knowledge or skill represented on other sticky notes. That is fine; just group your sticky notes together in clusters that make sense to you. As you do

this, you may see some sticky notes that you want to discard. Mark through them with an “X,” if you want, but don’t throw them away just yet—they may give you other ideas. You may also begin to think of additional words you’d like to add to some sticky notes to flesh out your ideas. That is okay, too. Arrange your clusters of related sticky notes on a sheet of paper or a flip chart and draw a circle around each cluster. Use this time to focus more closely on the specific things your students should know and be able to do when they graduate if they are to be prepared for your long-term goal.

As you organize your sticky notes into clusters, you will probably identify several broad knowledge and skill areas for your program. Those broad outcomes will likely include discipline-specific content knowledge and skills and general areas such as critical thinking, research skills, quantitative reasoning, communications, or others. Each of those broad outcomes will have many possible specific learning outcomes, depending on the discipline, the level (associate, baccalaureate, graduate, professional), and the specific purpose and focus of the program. Assign names to those broad outcomes. Any names that mean something to you are okay. And remember—don’t start thinking about “rules” just yet. We’re still brainstorming. We’ll call these clusters our Level 1 outcomes.

The sticky note clusters for the JPS goal “...employed as effective and ethical law enforcement officers or administrators” are shown below. Our Level 1 outcomes for this goal are Content Knowledge, Communications, Critical Thinking, and Teamwork. These Level 1 outcomes don’t show a direct relationship to the JPS degree program just yet. In fact, they could be broad outcomes for any program or even general education outcomes. We will focus on the discipline-specific outcomes in the steps that follow.

Content Knowledge

Knowledge of organizational management
Knowledge of constitutional law
Knowledge of personnel management
Knowledge of social factors related to crime
Knowledge of criminal law
Knowledge of public administration

Communication

Good report writing skills
Good verbal communication skills
Ability to write policies

Critical Thinking

Design programs to address crime problems
Ability to apply ethical standards

Teamwork

Good verbal communication skills
Knowledge of personnel management

Exercise 3: Example: Brainstorm: Level 1 Outcomes

Enter your Level 1 outcomes below.

Content knowledge
Communication
Critical thinking
Teamwork

Exercise 3: Your Turn: Brainstorm: Level 1 Outcomes

Review the instructions for this exercise, then identify the Level 1 outcomes for your program’s long term goal.

Enter your Level 1 outcomes below.

Level 2 and Level 3 Outcomes

Each of the Level 1 outcomes for the JPS program could be used to identify several program-level outcomes. Let's now divide each Level 1 outcome into several smaller outcomes that we'll call Level 2 outcomes. For example, I divided the Level 1 Communication outcomes into two Level 2 outcomes: Written Communication and Oral Communication. Level 2 outcomes may also have several possible outcomes associated with them. We'll call those Level 3 outcomes. The table below shows several Level 1, Level 2, and Level 3 outcomes—all associated with the long-term goal we identified in the previous section. As you can see, it would be possible to identify dozens of learning outcomes for an academic program, so the work we're doing now is important to keep our attention focused on those areas most important to the academic discipline.

Although we will complete the steps that follow for only one outcome in today's workshop, you are encouraged to seek input from important stakeholders before you repeat the process for your other outcomes. Who are your stakeholders? Common stakeholders for this process include advisory groups that support the program, employers, and the faculty from transfer or graduate/professional programs that accept your students. Programs are not required to elicit and document stakeholder involvement, but space is provided on the assessment planning template for you to note any stakeholders you consulted.

Level 1 Outcome	Level 2 Outcome	Level 3 Outcome
Content Knowledge	Law	Criminal law
		Constitutional law
	Public Administration	Organizational management
		Personnel
Communication	Written Communication	Police reports
		Policy
	Oral Communication	Police reports
		Public speaking
		Police relations
Critical Thinking	Ethical Reasoning	Belief systems
		Police ethics
	Law Enforcement Decisions	Community impact
		Legal consequences
Teamwork	Leadership	Facilitator
		Motivator
	Participation	Collaborative
		Supportive of team goals

Exercise 4: Example: Level 2 and Level 3 Outcomes

Enter your Level 2 and Level 3 outcomes below.

Level 2: Written Communication
Level 3: Policy

I have selected "Policy" from the list of possible Level 3 outcomes associated with my long term goal. The table above shows the connection back to the Level 1 outcome, which is connected to the JPS long term goal, and so on to "connect the dots" all the way back to the BSU mission

Exercise 4: Your Turn: Level 2 and Level 3 Outcomes

Recall that one of my original sticky notes from the brainstorm exercise was about the ability to write policies. That's an important skill for anyone in public service. Even though I've narrowed my outcome considerably in the previous steps, policy writing is still somewhat broad. I made some notes to help me decide on the specific kind of policy writing that will become the focus of my learning outcome. I decided to focus on writing good enforcement policies.

*Ability to write policies: What kind of policies? Personnel? Traffic investigation?
Patrol? Crime prevention? Something else?*

Exercise 4: Example: Level 3 Outcome-Focused

Enter your focused Level 3 outcome below.

Ability to write good enforcement policies.

Exercise 4: Your Turn: Level 3 Outcome-Focused

If your Level 3 outcome is still broad, revise it to focus on the outcome statement you'll flesh out in the next exercise.

Enter your focused Level 3 outcome below.

Outcomes: Guidelines

Now that you've completed the brainstorm exercises, you know what your first program learning outcome will be. In the next step, we will write an outcome statement using your Level 3 outcome from the brainstorm exercise.

This is where we start to think about the rules for writing good learning outcomes. There are several important guidelines (do's and don'ts) to consider when writing program outcomes.

1. ***Outcome statements should directly support at least one program goal.*** This is important for two reasons. First, this linkage to program goals will let you connect the dots all the way to your institution's mission. This is the final step in ensuring that assessment planning supports the mission of the institution and its constituent units.

Second, it is important to ensure that the long term goals are adequately addressed within the curriculum and the assessment of student learning. Otherwise, how will faculty know that students have acquired the knowledge and skills necessary to achieve the long-term goals? And how will they identify curricular improvements aimed at helping students to achieve the learning outcomes that prepare students to achieve those long-term goals?

If you find that you have identified an outcome that cannot be directly linked to one or more program goals, ask yourself whether the outcome seems to support the program mission? If you believe it does support the program mission, you may have omitted an

important program goal. Use this opportunity to make any necessary additions or revisions to your list of program goals.

2. ***Consider incorporating general education outcomes but do so within the context of the discipline.*** General education outcomes such as critical thinking and writing are important skills that students ordinarily acquire across an undergraduate core curriculum. Therefore, learning in those areas cannot be directly attributable to instruction within the major and should not be program-level learning outcomes.

It is, however, appropriate and even desirable to incorporate relevant general education outcomes into program outcomes. This will provide faculty with the opportunity to demonstrate how students apply their communication, critical thinking, or other general education skills in ways that matter within the specific discipline of the major. This will enable you to see whether students write, think, etc., the way professionals in your field write and think or in the way they will need to write and think when they enter graduate or professional school. A participant in one of my workshops said, “I want them to think like a chemist.” Great—she was taking her school’s critical thinking general education outcome and working to express it within the context of her discipline. That was a good Level 3 outcome for her to build on in the next exercise.

Incorporating general education outcomes into program-level outcomes can provide valuable information about student learning in those areas that goes beyond performance in individual general education courses or on standardized tests used for general education assessment purposes. We won’t go deeply into general education assessment today; that’s another workshop. For now, just know that the use of general education outcomes expressed as program outcomes can provide the basis for a robust institution-wide system of general education assessment.

It is unlikely that all of your institution’s general education outcomes are relevant to your program. For example, a B.A. in creative writing program would emphasize writing skills in the major coursework but would probably not emphasize quantitative skills. A B.S. in math, however, would certainly emphasize quantitative skills but may not emphasize writing. If one or more general education outcomes are important in your program, think about how you expect students to demonstrate those skills *within the context of your academic discipline* and write learning outcomes that express what that skill looks like for your program majors. See the example below.

Weak

Graduates of the BS in Justice and Policy Studies program will be critical thinkers.

Better

Graduates of the BS JPS program will be able to analyze a current issue in criminal justice.

3. ***Write outcome statements that are observable and measurable.*** Focus on observable behaviors rather than what students think, understand, appreciate, etc. We cannot measure what students know or understand, but we can measure how they demonstrate knowledge and understanding. Avoid outcome statements that say, “Students will understand...” or “Students will appreciate...”. When you’re tempted to use these, think about what students who understand or appreciate can DO with that understanding or

appreciation. Also, don't say, "Students will demonstrate understanding (or knowledge)." Talk about HOW they demonstrate them. See the example below.

Weak

Graduates of the BS JPS program will understand the Fourth Amendment to the Constitution.

Better

Graduates of the BS JPS program will be able to analyze a current search and seizure issue.

4. ***Write outcome statements that focus on knowledge and skills graduates should possess.*** Avoid a focus on inputs or resources such as curriculum design, department resources, faculty characteristics, instructional methods, or learning processes. Rather than saying that students *will learn*, *will increase understanding*, *will acquire knowledge*, etc., express outcomes in terms of what students will be able to do. See the example below.

Input Focused

Faculty will improve their content knowledge through participation in professional development activities.
Department labs will be equipped with state-of-the-art instruments.
Students will demonstrate their knowledge of Art History.

Outcome Focused

Graduates of the Art History program will be able to discuss the religious and political influences on 18th century European artists.

5. ***For programs that have specialized accreditation or certification, write outcome statements that take those assessment expectations into consideration.*** Some specialized accreditation organizations focus on curriculum design or other inputs rather than student outcomes. For those, you may want to write an outcome statement that addresses an input-based standard from the perspective of student-based outcomes. Some specialized accreditors provide specific learning outcomes that institutions must measure. Although the language and format of those outcomes may not adhere to our guidelines, you should use the specific language provided by the accreditation agency. See the example below.

External Standard

American Bar Association Standard 302(a)(2) A law school shall require that each student receive substantial instruction in legal analysis and reasoning, legal research, problem solving, and oral communication.*

Outcome Aligned with Standard

Graduates of the Juris Doctor program will make effective use of technology in legal research.

* This was taken from the *ABA Standards and Rules of Procedure for Approval of Law Schools (2013-2014)*. Beginning with 2014-2015, ABA now requires law schools to establish learning outcomes and assess student learning on those. The new Standard 302(b) states that, "A law school shall establish learning outcomes that shall, at a minimum, include competency in...legal analysis and reasoning...). I will continue to use the older version as an example of an external standard to be considered when writing outcomes.

External Accreditation Outcome

Accreditation Board for Engineering and Technology (ABET), Criteria for Accrediting Engineering Programs,

Outcome Specified by External Standard

Criterion 3, outcome f: "Understanding of professional and ethical responsibility."

Because this is a specific outcome mandated by ABET, we would use it as written and not modify it according to our guidelines.

6. ***Write outcome statements that do not combine multiple outcomes into a single statement.*** Avoid the temptation to bundle everything you value about your program into a lengthy outcome statement. Stay focused on clear and simple outcomes that will yield high quality information. There are times when an outcome must be rather complex in order to capture the complexity of a particular program. We sometimes speak of such outcomes as being so “interwoven” that to separate the elements into separate outcomes would somehow diminish the richness of the assessment. When evaluating your outcome statements, be careful not to lump multiple elements into a single statement unless you truly have a complex statement for a complex program. See the examples below.

Multiple outcomes (5)	Single outcome (1)	Complex outcome (1)
Graduates of the _____ program will be (1) lifelong learners who (2) understand the concepts of psychology and can (3) apply those concepts to (4) design and (5) conduct research studies.	Graduates of the _____ program will be able to (1) conduct research.	Graduates of the _____ program will be able to function in team-based interdisciplinary environment to solve complex problems.

One of the best ways to fix multiple outcomes is to collapse them into a single outcome. A common example is an outcome that refers to program graduates’ ability to “design and conduct research studies, and communicate the results of their research both orally and in writing.” This is easily resolved by saying that program graduates will be able to conduct research. Through the use of a well-structured rubric, program faculty can separately evaluate students’ ability to design a study, collect data, analyze data, interpret results, write research reports, and communicate their findings to others. Such a rubric will permit faculty to give feedback (and grades) for each of the separate components and then arrive at an overall grade for the project. This same approach can be used for any individual or group written or performance projects that can be assigned to students. We will see later that this approach can also yield rich assessment information that can be used to identify specific strengths and weaknesses in your students’ abilities.

7. ***Write outcome statements that are short and concise.*** Longer statements tend to be vague or include multiple outcomes.
8. ***Write outcome statements in the form of “Graduates of the _____ program will be able to ...”*** This format will help you to avoid many of the problems described in the preceding paragraphs.

Don’t be afraid to consider outcomes that may seem too vague or difficult to measure. If you have an idea about an outcome that you consider important to your program but doesn’t seem to fit these guidelines, contact the assessment team. We may be able to help you identify an appropriate measure for your outcome or to revise it into something more easily measured.

There are high-quality ways in which you can measure critical thinking, creative thinking, ethical reasoning, and other important skills you may value but are hesitant to use.

Exercise 5: Example: Outcome Statement: First Draft

After you have read the guidelines starting on page 23, write the final draft of a program outcome statement based on the Level 3 outcome you selected in the brainstorming exercise. Don't worry about perfection—you'll have an opportunity to review and revise.

Write the first draft of your outcome statement below.

BS JPS graduates who enter law enforcement will be critical thinkers and will have high clearance rates for investigations.

(OK, this isn't really from my sticky note, but I want to show an example.)

Review your draft outcome to determine whether all the guidelines have been met. In the space provided, indicate which guidelines were—or were not—met in your draft outcome.

The example below shows the results of the review of my draft outcome with explanations about each. I did not meet several guidelines, so I will need to revise the outcome in the next exercise.

	Are the guidelines met?	Comments
X	Support one or more long-term goals	High clearance rates are important to any law enforcement agency but unrelated to BS JPS. Remember to base each program outcome on a long-term goal to ensure consistency with the program mission.
X	Consider gen ed, if relevant, within context of discipline	Expresses critical thinking in context of the discipline. Also the BS JPS program trains its students in criminal justice <i>administration</i> , not <i>investigative</i> techniques.
<input type="checkbox"/>	Observable and measurable	Crime statistics are readily available through a number of public sources.
<input type="checkbox"/>	Focused on knowledge and skills, not inputs or processes	Solving crimes and closing cases is an outcome rather than a curricular input.
<input type="checkbox"/>	Consider external standards, if any	Agency might be CALEA accredited, but degree programs are not.
X	Avoid combining multiple outcomes	This is two outcomes.
<input type="checkbox"/>	Short and concise	This is not an overly wordy outcome.
X	Graduates will be able to	This does not describe a specific knowledge or skill.

Exercise 5: Your Turn: Outcome Statement: First Draft

Write the first draft of your outcome statement below.

Review your draft outcome to determine whether all the guidelines have been met. Use the space below to indicate which guidelines were—or were not—met, and make notes about your review.

	Are the guidelines met?	Comments
	Support one or more long-term goals	
	Consider gen ed, if relevant, within context of discipline	
	Observable and measurable	
	Focused on knowledge and skills, not inputs or processes	
	Consider external standards, if any	
	Avoid combining multiple outcomes	

	Short and concise	
	Graduates will be able to	

Exercise 5: Example: Outcome Statement: Revised

Use the information from the review of your draft outcome to write a revised version. If necessary, review the guidelines on pages 23-27.

Write the revised draft of your outcome statement below.

BS IPS graduates will be able to apply knowledge of social, behavioral and constitutional issues to develop well-written policies that are legally defensible and socially acceptable to key stakeholders.

Review your revised outcome to determine whether all the guidelines have been met. In the space provided, indicate which guidelines were—or were not—met in your draft outcome.

The example below shows the results of the review of my revised outcome, with explanations about each. I corrected some of the issues from the first draft but still did not meet two guidelines. I need to make further revisions.

	Are the guidelines met?	Comments
<input type="checkbox"/>	Support one or more long-term goals	The outcome is directly related to our long-term goal.
<input type="checkbox"/>	Consider gen ed, if relevant, within context of discipline	This is related to written communication and critical thinking.
<input type="checkbox"/>	Observable and measurable	There are many ways students can demonstrate these skills.
<input type="checkbox"/>	Focused on knowledge and skills, not inputs or processes	Demonstration of content knowledge and skills is outcome focused.
<input type="checkbox"/>	Consider external standards, if any	No accreditation standards apply.
<input checked="" type="checkbox"/>	Avoid combining multiple outcomes	This is multiple outcomes combined in a single statement.
<input checked="" type="checkbox"/>	Short and concise	This is somewhat wordy—a red flag for multiple outcomes.
<input type="checkbox"/>	Graduates will be able to	This is in the correct form.

Exercise 5: Your Turn: Outcome Statement: Revised

Write the revised draft of your outcome statement below.

Review your draft outcome to determine if all the guidelines have been met. Use the space below to indicate which guidelines were—or were not—met, and make notes about your review.

	Are the guidelines met?	Comments
	Support one or more long-term goals	
	Consider gen ed, if relevant, within context of discipline	
	Observable and measurable	
	Focused on knowledge and skills, not inputs or processes	
	Consider external standards, if any	
	Avoid combining multiple outcomes	
	Short and concise	
	Graduates will be able to	

Exercise 5: Example: Outcome Statement: Final

Write the final draft of your outcome statement below.

BS JPS graduates will be able to write appropriate enforcement policies.

	Are the guidelines met?	Comments
<input type="checkbox"/>	Support one or more long-term goals	The outcome is directly related to our long-term goal.
<input type="checkbox"/>	Consider gen ed, if relevant, within context of discipline	This is directly related to Justice & Policy Studies.
<input type="checkbox"/>	Observable and measurable	There are many ways faculty can assign students to demonstrate this.
<input type="checkbox"/>	Focused on knowledge and skills, not inputs or processes	Demonstration of content knowledge and skills is outcome focused.
<input type="checkbox"/>	Consider external standards, if any	No accreditation standards apply.
<input type="checkbox"/>	Avoid combining multiple outcomes	This is a single outcome.
<input type="checkbox"/>	Short and concise	This is short and concise.
<input type="checkbox"/>	Graduates will be able to	This is in the correct form.

Exercise 5: Your Turn: Outcome Statement: Final
Write the final draft of your outcome statement below.

Review your draft outcome to determine if all the guidelines have been met. Use the space below to indicate which guidelines were—or were not—met, and make notes about your review.

	Are the guidelines met?	Comments
<input type="checkbox"/>	Support one or more long-term goals	
<input type="checkbox"/>	Consider gen ed, if relevant, within context of discipline	
<input type="checkbox"/>	Observable and measurable	
<input type="checkbox"/>	Focused on knowledge and skills, not inputs or processes	
<input type="checkbox"/>	Consider external standards, if any	
<input type="checkbox"/>	Avoid combining multiple outcomes	
<input type="checkbox"/>	Short and concise	
<input type="checkbox"/>	Graduates will be able to	

OUTCOMES METHOD 2: ALTERNATIVE

In his National Institute for Learning Outcomes Assessment (NILOA) Occasional Paper, *To Imagine a Verb: The Language and Syntax of Learning Outcomes Statements*, Adelman (2015) offers an updated approach to writing learning outcomes. In this paper, he argues for an approach based in linguistics and philosophy with a focus on syntax (the arrangement of words in a sentence) and semantics (the use of meaning). Adelman's approach leads the reader toward learning outcome statements that are richer and more complex than those developed using the more traditional approach outlined in the previous section.

Programs that choose to adopt the Adelman approach can use the advice contained within the paper to write rich outcomes that incorporate his philosophy or they may choose to adopt a subset of the outcomes from the Degree Qualifications Profile (DQP).

DQP, funded by the Lumina Foundation and first published in 2011, was a collaborative effort that involved higher education leaders, educational association representatives, and others. The

purpose is to clearly identify what students should know and be able to do as they move through progressively higher educational levels (associate, bachelor's, master's). DQP is not intended to serve as a set of standardized national learning outcomes for American colleges and universities. Through a process known as *tuning*, institutions may modify the base language of the outcomes to fit discipline- and institution-specific contexts, but many institutions have adopted the DQP outcomes without modification. For those who prefer to engage in a tuning process, no-cost coaching and support are available through NILOA and the Lumina Foundation. See the DQP website at <http://degreeprofile.org> for more information about DQP, including free downloads of all DQP documents.

Before you begin to work with the DQP outcomes, it's a good idea to read through the information on the website, especially the 57-page Degree Qualifications Profile publication. For now, take a few minutes to read the bulleted list on page 3 of the DQP document for ways in which institutions have been using DQP, and read the five DQP learning categories on page 5 of the DQP document.

When I use DQP outcomes as program outcomes, I do not write the entire DQP outcome language on my assessment plan template. I use the number, header, and name from the DQP grid. Notice that the Intellectual Skills category is actually six different outcomes. If you select from that category, be sure to indicate which outcome(s) from the list you've selected.

Exercise 6: Example: DQP Outcome

Review your long term program goals in Exercise 2 on page 14. Select one DQP outcome that support the goal you're working on today.

Write the name of your first DQP outcome below.

DQP 3 – Intellectual Skills –Analytic Inquiry.

Next, write a brief statement of why you believe this outcome is important to your program.

BS JPS students are expected to analyze and create policies that integrate knowledge from multiple content areas (law, sociology, etc.).

Exercise 6: Your Turn: DQP Outcome

Write the name of your first DQP outcome below.

Next, write a brief statement of why you believe this outcome is important to your program.

Write the name of your second DQP outcome below.

Next, write a brief statement of why you believe this outcome is important to your program.

Write the name of your third DQP outcome below.

Next, write a brief statement of why you believe this outcome is important to your program.

OUTCOMES: SUMMARY

Alignment of outcomes

At this point, you should refer to the curriculum map for your program to ensure adequate coverage for all program outcomes. You should also work with course instructors to ensure that outcomes are properly reflected in course syllabi.

If you are working on an undergraduate program, I encourage you to map your program outcomes against your institution's general education outcomes. This should happen with all undergraduate programs, and the results should be examined to ensure that the general education outcomes are being addressed within the majors and upper division courses and not just the lower division "gen ed" courses.

A final thought on learning outcomes

When your assessment plan is complete, think about how you will distribute the outcomes. Obviously, you will submit them to the assessment office, upload them to your assessment software system (if any), and possibly post them on the website. But what about students? You should plan to share the outcomes with current as well as prospective students to communicate with them about the knowledge and skills they should acquire in the program. Many schools publish this information on their websites and in the catalog. You should also include them on course syllabi with information that shows the alignment of program outcomes with both institutional and course outcomes.

MEASURES

"If you cannot measure it, you cannot improve it." (Baron Kelvin, 19th century physicist known for his work in thermo-dynamics). In the previous section, you developed a program-level learning outcome that defined one area of what your students should know and be able to do before graduation. In this section, you will select measures of student learning on that outcome. Measures answer the question of how we know whether graduates know and can do the things in our outcomes. Think about where in the curriculum students have opportunities to learn the content or skill of the outcome and where they have opportunities to try out and demonstrate their learning.

You should identify two direct measures of student learning and one indirect measure. A direct measure is one in which students demonstrate their learning through a performance of some kind. In other words, the students have to actually *do something*. Direct measures include exams, projects, and other activities where the students demonstrate their knowledge or skill. An indirect measure is one that does not call on students to demonstrate their knowledge or skill but provides other information from which we can draw inferences about student learning. Rather than relying on some *evaluation* of students' demonstration of their learning, indirect measures rely on *perceptions* of student learning by students, alumni, or a third party. Third parties are

typically employers of program graduates or faculty in graduate or professional programs that admit program graduates. Surveys and employment data are the most common indirect measures. Internships and practicums sometimes cause confusion. They are direct measures—not indirect. Even though they rely on third party information, they are an evaluation of students' direct demonstration of their learning. The third parties in this case are qualified experts identified by faculty to provide real-world opportunities for students to apply their learning and to give feedback about student performance. This is also true for juried events for the creative or performance arts.

Examples of direct and indirect measures are shown below.

Direct	Indirect
Capstone (project/paper/portfolio) Standardized tests (ETS field tests, etc.) Presentations/oral defenses Classroom exams or quizzes Classroom/homework assignments Course projects Papers (research, term, creative, etc) Internships or practicums Design projects Practical clinic assessments Artistic creations or performances Classroom discussions Online discussion threads Licensure/certification exams Performance appraisal Portfolios Publications/presentations Master's theses or doctoral dissertations	Student surveys & focus groups Exit surveys and interviews Alumni surveys and interviews Employer surveys and interviews Job placement data Admission to further academic study Course evaluations

Be sure to follow these guidelines when identifying appropriate measures for your outcome.

1. **Identify three measures for each outcome.** The first and second measures must be direct measures, and the third must be an indirect measure.
2. **Measure student learning on the outcome near the end of the program.** Remember that the purpose of assessment is to study the extent to which program graduates possess the desired knowledge and skills. Identify those points in the curriculum where students have opportunities to demonstrate their knowledge or skill. Focus on capstone or other culminating experience, upper division coursework, and those points that will let you draw reasonable inferences about program graduates. Avoid the temptation to select exams and assignments from earlier in the program; you wouldn't want that work to represent what your graduates know and can do.

What about formative assessment? That is outside of the scope of this handbook, but you should plan to examine student performance related to your outcomes at key points through the curriculum, to study whether students are on track to meet performance expectations at the end. If corrective measures that may help students either meet performance expectations or at least minimize the extent to which they do not meet expectations so you can identify further corrective measures for the next cycle.

3. **Avoid purchasing or creating additional tests or other assessment activities simply to satisfy your assessment data collection needs.** In other words, rely on *course-embedded* assessment. Using standardized tests for assessment isn't recommended unless they are closely suited to the program and will provide specific information about students. That is rarely the case. These tests can be very expensive, and students are not motivated to do well on them if they are not part of a course grade. Even with incentives, institutions have great difficulty getting their students to do well on these tests. Focus on

the exams, projects, or other measures of student learning that already occur as part of your existing instruction and testing activities. If you have difficulty identifying appropriate measures for an outcome, you may want to consider whether students are having opportunities to demonstrate their learning on the outcome—or whether the outcome is an appropriate one for your program. If the outcome is an important one but is not adequately measured, program faculty will need to identify appropriate measures.

4. **Course grades and course completion are NEVER appropriate measures of student learning.** Course grades are based on overall satisfaction of course requirements rather than performance on a specific program-level outcome. Those course requirements typically include course-level outcomes that may be related to more than one program outcome. Course grades include such things as extra credit for attendance, class participation, or other things unrelated to program outcomes. Course grades alone do not provide specific information about the concepts mastered by students or those concepts that proved challenging—important information for faculty to consider in order to support continued improvement of student learning.

Consider the following example of two students who successfully completed JPS-442 (Policy for the Justice Administrator). The course content included a historical review of common justice policies, exercises in analyzing the effectiveness of past and present policies of metropolitan police agency, and a final exam in which students analyze samples of policies and recommend improvements. The instructor considers attendance to be important, so 10% of the course grade is based on attendance. Students who miss three or more class sessions receive no credit for attendance.

Assignment	Weight	Student A	Student B
Attendance	.10	100.0	0.0
History Quiz	.15	90.0	92.0
Homework	.15	90.0	96.0
Midterm	.30	89.0	98.0
Final	.30	88.0	100.0
	Total	90.1	87.6
	Course Grade	A	B

If JPS faculty chose to use course grades from JPS-442 as a measure of student policy-writing skills, it would appear that Student A had graduates with better policy-writing skills than Student B. In reality, Student B performed much better than Student A on the only direct measure of policy writing from the JA-442 class.

Do not use completion of a single course or a block of courses as a measure. The issues are the same as with course grades.

5. **An overall grade for an exam, project, etc. may or may not be appropriate.** It is common for faculty to report a final grade or project as a direct measure for one of their

outcomes. Before doing so, consider whether the exam or project measures only student learning related to the program outcome. Final exams typically cover course content from throughout a semester, much of which may be unrelated to the outcome (although it may be related to another program outcome). When this is the case, be sure to write out the measure to indicate the specific exam items, section(s) of a paper, or portion of a project that will be used to measure student learning specifically on this outcome. For example, a learning outcome related to critical thinking might be measured in a capstone project that also measures student learning on oral and written communication, regulatory/ethical issues within the discipline, and quantitative analysis. For such a project, the measure might be a portion of the project that calls for students to analyze a variety of possible solutions to a problem, recommend a best solution, and support the recommendation. In that case, the instructor might list the measure as, “Recommendation section from capstone project in [Course Number and Course Name].” For a cumulative math final exam, the instructor would identify a subset of the test items that measure learning specific to the outcome. Once you’re more experienced with assessment measures, it may make more sense to list the name of the project, etc. here. If you do that, remember to use the targets for the measure (next section) to focus on the specific part of the measure to be analyzed.

6. **Be specific.** Rather than saying “tests,” say “Final exam in JPS 428, Senior Capstone.” Rather than “research papers,” say “Research paper in JPS 393, Social Issues in Law Enforcement.” By identifying a specific exam or assignment in a specific course, you are creating a data collection plan for your program assessment. For surveys, indicate the specific item(s) that will be used to measure the outcome. For example, “Exit survey item that asks the extent to which the BS JPS program helped students to develop their analytical thinking skills.” Otherwise, you may be leaving your data collection to chance and fail to collect important information about your students’ learning.

One exception to this is when a small program whose students may not take the same upper-level courses decides to select complex student work from several different classes. The work may include papers written in response to different assignments, portfolios, student projects, and a variety of artifacts. In this case, the instructors for the various classes might decide to use a common rubric for the portions of the student work related to the outcome. Alternatively, the course instructors might use their own separate grading procedures and then provide the student work to departmental faculty with assessment responsibility. Those faculty will, in turn, conduct a secondary review using rubrics such as the VALUE rubrics or components of the Lovitts (2007) rubrics (for doctoral dissertations). This is a particularly strong assessment practice that can yield high-quality information about student learning by permitting faculty to do an in-depth review of a cross-section of student work in relation to a specific outcome.

7. **Don’t write a long description of the measure.** It is not necessary to describe the content of an exam or assignment, a rationale for its inclusion in your assessment, or the scoring method you will use. This level of detail is appropriate to record in any program or departmental notes or minutes you will maintain. For your assessment plan, you only need to list the specific measure (final exam in [course ID, course name], senior capstone paper, oral presentation of [course ID, course name] project, dissertation, etc.). You may

want to provide a copy of the exam, assignment, or instructor-designed scoring rubric with the assessment report for documentation purposes.

8. **Don't combine multiple measures as one.** Avoid saying, “exams and assignments in JPS-442.” You may decide to combine the scores for multiple quizzes or homework assignments, to identify a specific subset of test items that relate to the outcome, or to identify a specific subset of survey items that relate to the item. It is appropriate to do so, and you may want to describe your measure as an aggregate (e.g., mean score) on the quizzes or items used.
9. **Don't use pre-post measures.** Pre- and post-testing can be useful for many purposes but not for program assessment. Remember that the purpose of assessment is to identify what program graduates should know and be able to do, and whether they know it and can do it. Pre- and post-testing only tells you how much *better* they know or can do something on the second test—not how *well* they can do it.

Let's look at two sections of JPS-442 (Policy for the Justice Administrator) at Baker State University. The instructors in both sections agree to administer a pre- and post-test that is a 25-item multiple choice quiz related to policy analysis and policy writing. They believe quiz performance will help predict performance on the capstone project and help them identify possible areas of concern. The passing score for the quiz is 20 points (80%). Look at the mean scores on the pre- and post-tests for students in the two sections.

Section	Poss Pts	Mean (pts)	Mean (pct)	Mean (pts)	Mean (pct)	Gain (%)
001	25	8	32	18	72	40
002	25	17	68	31	84	16

The students in Section 001 had a low mean score on the pre-test but improved considerably on the post-test. The students in Section 002 had a much higher mean score on the pre-test than the students in Section 001, but they only improved by a few points on the post-test. If the JPS faculty used this quiz as an outcome measure, they might be tempted to conclude that the large increase observed in Section 001 indicated that those students were progressing very well while the smaller increase observed in Section 002 indicated that those students were not. However, if you examine only the mean score for the post-test, you'll see that the mean score for Section 001 fell below the passing score on the quiz and the mean score for Section 002 was above the passing score.

Since JPS faculty believe this quiz serves as a good predictor of performance on the capstone project, it is probably a good measure to use in their formative assessment efforts—if they consider only the mean score on the post-test and not the difference between the pre- and post-scores.

10. **Use the same measure for more than one outcome, if relevant.** Capstones, project internships, and other complex measures will often be related to more than one program outcome. It is fine to use the same measure for as many outcomes as relevant. The JPS

capstone project described below is an example of what I call getting “more bang for your assessment buck.”

Before we start writing our measures, consider the following measure that would be appropriate for the JPS program outcome: “BS JPS graduates will be able to write appropriate enforcement policies.”

- The JPS-442 final exam that required students to evaluate policies and make recommendations.
- Alumni surveys that ask program graduates employed as justice administrators how well the program prepared them to write policies.
- Surveys of senior officials who supervise program graduates employed as justice administrators about how well prepared program graduates were to write policies.
- Consider the following example of an assignment that could be used as a final project for an undergraduate capstone course or a graduate-level comprehensive exam question. In fact, I will use this as a direct measure for the JPS program.

Policy Development Project

JPS 443- (JPS Senior Capstone)

Choose a current social issue that presents an enforcement issue to law enforcement personnel. Write a policy to address enforcement of that issue for a municipal police department. Your response should include the following:

a historic summary of the issue you have chosen and an explanation of its development as a social issue as well as a law enforcement issue.

an analysis of the cultural, political, or societal factors that led to the issue you have chosen and how your policy addresses those factors.

a discussion of the legal aspects surrounding enforcement of the issue you have chosen. You should address any constitutional, statutory, administrative, or agency policies that are related to your issue and discuss how your policy will withstand legal challenges to its implementation.

a list of the groups of stakeholders who may have strong opinions on the issue or on any enforcement policy that might be implemented. For each stakeholder group, provide a brief description of that group’s likely concerns, how they might react if your policy is implemented, and how you would respond to any negative reactions.

a brief discussion of how you might evaluate the effectiveness of the policy, if implemented.

A complex exam item such as the one above can be a valuable assessment tool. This item would be a very good measure for our JPS policy writing program outcome. It would also provide rich information about student knowledge and skills on other likely program outcomes such as legal knowledge, critical thinking, analytic writing, and problem solving.

The use of a high-quality scoring rubric to evaluate student performance on such an item would yield information about the learning of individual students as well as overall performance of program graduates. The information gained from such items is valuable for assessment purposes because it can inform faculty decisions about continuous improvement to the curriculum.

Review the guidelines beginning on page 33, then write one direct measure and one indirect measure for the outcome you wrote in the previous section. Don't worry about perfection—you'll have an opportunity to review this draft and make revisions.

Review your draft measures to determine whether all the guidelines have been met. In the space provided indicate which guidelines were—or were not—met in your draft measures.

The example below shows the results of the review of my draft measures, with explanations about each.

Exercise 7: Example: Measures

Write two direct measures and one indirect measure for your outcomes.

Direct: Final exam in JPS 442 (Policy Analysis) Direct: Policy development project in JPS-443 (Senior Capstone) Indirect: BSU undergraduate alumni survey items that ask whether students are employed and how closely their job is to their undergraduate program at BSU		
	Are the Guidelines Met?	Comments
<input type="checkbox"/>	Three measures (two direct, one indirect)	<i>Correct. This isn't required but I used a capstone measure that built on work from the previous course. The capstone assignment and the scoring rubric is on p. 54.</i>
<input type="checkbox"/>	Near the end of the program	<i>Correct. This is the capstone.</i>
<input type="checkbox"/>	No unnecessary extra tests	<i>Correct.</i>
<input type="checkbox"/>	No course grades or course completions	<i>Correct.</i>
<input type="checkbox"/>	Overall assignment/test grade	<i>Correct. I only listed the full project but will be specific in my targets.</i>
<input type="checkbox"/>	Be specific	<i>Correct.</i>
<input type="checkbox"/>	No long description	<i>Correct.</i>
?	No multiple measures	<i>The indirect measure may appear to be multiple measures, but we ask whether students are currently employed, then filter responses to count only those who respond that they are.</i>
<input type="checkbox"/>	No pre-post measures	<i>Correct.</i>
<input type="checkbox"/>	Try to get "bang for your buck"	<i>Correct. The project can be used to measure several outcomes.</i>

The policy development paper used as a direct measure for the JPS program is a good example of a measure that could be used for more than one outcome. Looking back at the sticky notes from the earlier outcomes brainstorming exercise, it's evident that this assignment could also be used to measure these outcomes:

- Knowledge of constitutional law
- Report writing skills
- Knowledge of social factors related to crime
- Knowledge of criminal law
- Knowledge of public administration
- Design programs to address crime problems

Exercise 7: Your Turn: Measures

Write the first draft of two direct measures and one indirect measure for your outcome.

Direct	
Direct	
Indirect	

Review your draft measures to determine if all the guidelines have been met. Use the space below to indicate which guidelines were—or were not—met and make notes about your review.

	Are the Guidelines Met?	Comments
	Three measures (two direct, one indirect)	
	Near the end of the program	
	No unnecessary extra tests	
	No course grades or course completions	
	Overall assignment/test grade	
	Be specific	
	No long description	
	No multiple measures	
	No pre-post measures	
	Try to get “bang for your buck”	

Exercise 7: Your Turn: Revised Measures

Write the revised measures below.

Direct	
Direct	
Indirect	

Review your revised measures to determine if all the guidelines have been met. Use the space below to indicate which guidelines were—or were not—met and make notes about your review.

	Are the Guidelines Met?	Comments
	Three measures (two direct, one indirect)	
	Near the end of the program	
	No unnecessary extra tests	
	No course grades or course completions	
	Overall assignment/test grade	
	Be specific	
	No long description	
	No multiple measures	
	No pre-post measures	
	Try to get “bang for your buck”	

Exercise 7: Your Turn: Final Measures

Direct	
Direct	
Indirect	

TARGETS

We've identified outcomes to tell us what program graduates should know and be able to do, we've identified measures to help us determine whether students know and can do those things, and now we will set targets that communicate our expectations about how well students should be able to demonstrate their knowledge and skill on the outcomes. We will set a primary target for each measure to identify the level of performance necessary to satisfy us that aggregate student performance on the measure indicates that the program outcome has been achieved. Not all students in a program will perform perfectly on every measure, so program faculty must identify a threshold above which they will be satisfied that, on the whole, students who graduate from the program possess the knowledge or skill specified in the outcome.

At this point, some people worry that they're creating a legal promise that every student will have certain skills when they graduate. That's not what we're doing here. We've already determined that people who graduate from the program should know and be able to do the things specified in the outcomes. Those whose performance consistently fails to meet faculty expectations will probably not succeed and graduate from the program. Setting assessment targets does not promise any particular outcome to any individual student.

For some programs, we may also set a secondary target that will identify a lower threshold below which we do not want student performance to fall. Secondary targets can be useful in programs with a high percentage of at-risk or developmental students.

Targets must be identified prior to the collection and analysis of assessment data. When setting targets, it can be tempting to set unreasonably high "nothing but the best" standards or to set unreasonably low "guaranteed to succeed" standards. Both of these practices can be defeating. Over time, it is far more beneficial to a program and its students to set reasonable expectations and work toward meeting them.

Avoid setting a target that says 100% of students will _____. When tempted to set the threshold at 100%, consider the following scenario. If even a single student in a large program did not meet your expectations on the measure, would you conclude that your program graduates do not possess the knowledge or skill of the outcome? Probably not. Think of a reasonable standard and set the threshold at that level.

Programs that set targets so low that they are assured of meeting their outcomes present a number of issues. Unreasonably low standards deprive faculty of the opportunity to identify strengths and weaknesses in their students' performance, thus depriving present and future students of the benefits of program improvements that might otherwise occur. The low standards communicate to current and potential students that the faculty have low expectations for them. A

program that establishes low expectations for student performance may not push students to perform at their maximum potential and may not attract the most qualified applicants.

A primary target is written as a statement indicating that *at least* some percentage of students will perform at or above a certain level on the measure. A secondary target is written in conjunction with a primary target and indicates that *no more than* some percentage of students will fall below a certain level on the measure. A primary target must be provided for every measure. Secondary targets are optional. The use of both primary and secondary targets can provide richer information about student learning that will inform decisions about needed curricular improvements and student success efforts.

Here are some examples of pairs of primary (P) and secondary (S) targets:

(P) 80% or more of students will earn 75% or higher on the [subset of outcome-related test items] on the final exam

(S) No more than 10% of students will earn below 60% on [subset of outcome-related test items] on the final exam.

(P) 75% or more of students will earn a rating of “Meets Expectations” or better on the research paper.

(S) No more than 5% of students will earn a rating of “Does not Meet Expectations” on the research paper.

(P) 90% or more of student papers will be evaluated at a Level 3 or higher on the VALUE rubric for Ethical Reasoning.

(S) No more than 10% of student papers will be evaluated at a Level 1 on the VALUE rubric for Ethical Reasoning

(P) 85% or more of alumni survey respondents will report that they are currently employed in a field that is related or closely related to their degree program.

(S) No more than 15% of alumni survey respondents will report that they are not currently employed in a field that is related or closely related to their degree program.

(P) 80% or more of exit survey respondents will report that the BS JPS program contributed “Quite a Bit” or “Very Much” to the development of their critical thinking skills

(S) No more than 10% of exit survey respondents will report that the BS JPS program contributed “Very Little” or “Not at All” to the development of their critical thinking skills

(P) 75% or more of sampled papers reviewed will be evaluated at a level of “Satisfactory” or higher, using a faculty-developed rubric

(S) No more than 10% of sampled papers reviewed will be evaluated at a level of “Needs Improvement” or lower, using a faculty-developed rubric

(P) 85% or program graduates will pass the state licensure exam on the first attempt

(S) No more than 5% of program graduates will fail to pass the state licensure exam on the second attempt

(P) 80% of doctoral dissertations will receive a rating of “Very Good” or “Outstanding” for methods, using the Lovitts (2007) rubric for [academic discipline]

(S) No more than 10% of doctoral dissertations will receive a rating below “Good”

There are several important guidelines to consider when identifying appropriate targets for your outcomes. Other than the general guidelines below, there are no instructions about where targets should be set. It involves using a “best guess” for the first cycle and studying assessment data to determine whether the original target was appropriate.

1. **The target must be directly related to the measure.** If the measure is an exam, the target will be a threshold of performance on the exam (or the outcome-related subset of exam questions). If the measure is survey item, the target will be threshold of respondents’ ratings on that particular item (or subset of items).
2. **Write targets in this format.** “XX% of students will earn a grade/rating of YY or higher on the [name of exam/project]” or “XX% of students will [pass/successfully defend] the [licensure exam, dissertation] on the first attempt” or “XX% of respondents will report that [use scale points from survey item].”
3. **Course grades and course completion are not appropriate for use with targets.** As with measures, it is important to focus on the specific exam, project, etc. that will be used to measure student learning on the outcome.
4. **No pre-post targets.** See the discussion of pre- and post-tests in the Measures section.

Exercise 8: Example: Targets

Write the first draft of a primary and secondary target for one direct and one indirect measure.

Direct	Primary	<i>At least 80% of BS JPS students will earn an overall rating of 3 or higher on the policy development project.</i>
	Secondary	<i>No more than 10% of BS JPS students will earn an overall rating of 2 or lower on the policy development project.</i>
Indirect	Primary	<i>Eighty percent or more of employed JPS alumni who respond to the alumni survey will report that their job is either “Somewhat Related” or “Very Related” to their undergraduate program at BSU.</i>
	Secondary	<i>No more than 10% of employed JPS alumni who respond to the alumni survey will report that their job is “Unrelated” to their undergraduate program at BSU.</i>

	Are the Guidelines Met?	Comments
<input type="checkbox"/>	Directly related to the measure	
<input type="checkbox"/>	Written in correct format	
<input type="checkbox"/>	No course grades or completions	
<input type="checkbox"/>	No pre-post targets	

Exercise 8: Your Turn: Targets

Write the first draft of a primary and secondary target for one direct and one indirect measure.

Direct	Primary	
	Secondary	

Indirect	Primary	
	Secondary	

Review your draft targets to determine whether all the guidelines have been met. Use the space below to indicate which guidelines were—or were not—met and make notes about your review.

	Are the Guidelines Met?	Comments
	Directly related to the measure	
	Written in correct format	
	No course grades or completions	
	No pre-post targets	

Exercise 8: Your Turn: Targets-Revised

Write the revised draft of your targets.

Direct	Primary	
	Secondary	
Indirect	Primary	
	Secondary	

Review your revised targets to determine if all the guidelines have been met. Use the space below to indicate which guidelines were—or were not—met and make notes about your review.

	Are the Guidelines Met?	Comments
	Directly related to the measure	
	Written in correct format	
	No course grades or completions	
	No pre-post targets	

Exercise 8: Your Turn: Targets-Final

Write the final version of your targets.

Direct	Primary	
	Secondary	
Indirect	Primary	
	Secondary	

SAMPLING

As part of your assessment planning process, you will identify a sampling strategy for each measure. It is important to think about sampling during this early stage of your assessment cycle. This will form the data collection plan for your assessment activities and will help to ensure that data collection is not left to chance or overlooked until after the academic year has passed.

It is not necessary to select a statistically representative student sample although you may choose to do so. It is important, however, that you collect and analyze data from a group of students that

is reasonably representative of the group of program majors about whom inferences will be drawn.

Rather than sampling students, faculty may decide to sample course sections. For a large program that offers many sections of a course that has an exam or project that will be used as an assessment measure, it may be preferable to use student work from a sample of those course sections. Remember that the goal is to identify a reasonably representative group of program majors in your data collection. You should not focus on honors selections nor should you systematically exclude them.

As you plan your sampling strategy for each measure, first think about the number of students who will be included in the data collection and who those students will be.

Remember that we are drawing inferences about program graduates only. Do not include students enrolled in a course used for data collection if they are not majors in your program. Their data from other courses will be reflected in the data for the programs in which they are majors.

The number of students who could potentially be included in your data collection may be very large if you include all your major students enrolled in a large class; it may be a smaller number if you included only a sample of those students; or it may be only one or two students if the program is small. As you decide whether to include data for all program majors or for a smaller sample, you should also consider the complexity of the data and any analysis that will be required. If the measure is more complex and will require a rubric to yield sub-scores for separate components of the assignment, it may be time consuming to score the work and enter the data for a large number of students; in this case, you may choose to include only a reasonably representative sample of program majors. Likewise, if you engage in a secondary evaluation/analysis of theses or dissertations using Lovitts' rubrics (or others developed by program faculty), you may decide to include only a sample of student work in your secondary review.

The program majors included in your sample may or may not be students who will graduate in the current academic year. If the measure is a course exam, for example, the class enrollment may include majors who are at different points in their program completion and will not necessarily graduate at the same time. This may also be true for a capstone course. Although most students in the capstone will be seniors who are about to graduate, there may be students whose graduation will not occur during the present academic year. Do not exclude those students. Although the purpose of assessment is to provide information about the knowledge and skills of program graduates, we collect the information at different points during those students' education and may include information from students who are about to graduate as well as those who have one or more semesters of coursework before they complete their studies.

I once worked with faculty from a program who had selected what they considered to be their program's culminating experience as a key assessment measure. This was the first time this program had undergone assessment, so they had never gathered these data or looked at it beyond assigning grades. They were surprised to learn that student performance was much lower than expected. In the Reporting section of this handbook, you will learn to review your assessment data and identify factors that likely contributed to the results. As their group began to dig down into the data to understand what had happened, they quickly realized that a large proportion of

the students enrolled in the class were only in their second semester of college yet had been allowed to register for what program faculty considered to be the final course in the program. That explained the unexpectedly low performance on this measure, and the faculty began the process to create prerequisites for that course.

It is unlikely that you will know in advance the number of students for whom you will have data. Although you will determine your sampling strategy at this time, you will describe your sampling and the number of students included when you submit your assessment report at the end of the assessment cycle.

There are several important guidelines to consider when preparing the sampling strategies for data collection on each of your measures;

1. **Before the fact.** The sampling strategy statement reflects a decision about how you will select a reasonably representative group of program majors AND minimally answers the following questions:
 - a. How many students will be included in data collection?
 - b. Who will those students be?
 - c. What timeframe is associated with data collection? This is dictated by when the course is offered during the academic year.
 - d. Other unique parameters (e.g., specific course section; specific level of student, e.g., junior, senior)?
2. **Program majors only.** The only students who should be included in your sampling are program majors. Do not include students who are enrolled in a class used for data collection that are associated with other programs.
3. **Reasonably representative.** Although a statistically representative sample is not required, you should take appropriate steps to ensure a reasonably representative sample.
4. **Written in the correct form.** The sampling strategy should be written in the correct form, as shown in this section. This makes the expectations of program faculty very clear, which will be important when it is time to analyze the assessment data.

Here are some examples of sampling strategies:

All program majors enrolled in a specific course during a specified term:

100% of _____ [program] majors enrolled in _____ [course number and name] in _____ [term(s)].

Smaller percentage (e.g., 50%) of program majors enrolled in a specified course during a specified term:

_____ [percent] of _____ [program] majors enrolled in _____ [course number and name] in _____ [term(s)].

Program majors enrolled in all sections of a multiple section course during all three terms:

_____ % [percent] of _____ [program] majors enrolled in all sections of [course number and name] for all terms of academic year 2015-2016.

Program majors enrolled in a specified course and specific course section(s) of a multi-section course:

_____ % [percent] of _____ [program] majors enrolled in all sections of [course number and name] for all terms (or specific terms) of _____ [academic year].

Exercise 9: Example: Sampling

Write the sampling strategies for each of your measures.

Direct: All program majors enrolled in JPS-443 (Senior Capstone) for Spring 2018.

Indirect: All JPS alumni who respond to alumni survey and indicate that are currently employed.

	Are the Guidelines Met?	Comments
<input type="checkbox"/>	Before the fact	
<input type="checkbox"/>	Reasonably representative sample	
<input type="checkbox"/>	Program majors only	
<input type="checkbox"/>	Written in correct form.	

Exercise 9: Your Turn: Sampling

Write the sampling strategies for each of your measures.

Review your draft sampling strategies to determine if all the guidelines have been met. Use the space below to indicate which guidelines were—or were not—met and make notes about your review.

	Are the Guidelines Met?	Comments
	Before the fact	
	Reasonably representative sample	
	Program majors only	
	Written in correct form.	

Exercise 9: Your Turn: Sampling--Final

Write the final strategies for each of your measures.

You have now completed the steps to create an assessment plan. Repeat those steps for the remaining outcomes to be assessed this cycle and your plan will be finished.

STEP TWO: COLLECT DATA

You have completed the complex and time-consuming work of planning your assessment activities. The outcomes, measures, targets, and sampling strategies you identified were both the data collection plan for this step of your assessment work and the foundation for the interpretation and decision-making steps that follow.

You should decide, in advance, who will be responsible for data collection and storage. Will each person who teaches a class that includes an outcome measure be responsible for creating a spreadsheet of students and exam scores, project grades, or other information? Will a support person coordinate this activity? Who will assemble any survey data that will be used? GCCC procedure requires that instructors submit the following materials with their completed Annual Program Assessment Reports: the assignment description and grading rubric/criteria provided to students, and student artifacts (the student work itself) whenever possible.

When does data collection occur?

Data collection occurs throughout the academic year but many faculty prefer to focus their data collection activities during the spring term.

Your assessment plan points to the specific courses and student experiences that will be used to measure student learning. It is important to determine the points during the year when information from those courses or experiences will be collected from instructors or other responsible persons. Be sure to notify those individuals well in advance so that this important step will not be overlooked.

Consider collecting and storing copies of student artifacts (paper or digital) that provide your assessment data. When you reach the interpretation phrase in the next step, you'll begin to see how important it is to examine patterns of student performance in addition to the actual numbers associated with grades on exams and projects. Be sure to have a plan about what is collected, where it is stored (server? file cabinet?) and how you will ensure privacy of student information.

The most important thing to remember about data collection is to DO IT. If someone fails to collect, store, and record the data related to one or more of the measures in your assessment plan, you will have missed the window for reporting in this assessment cycle. That will impede your efforts to improve student learning and could raise accreditation concerns.

STEP THREE: ANALYZE & INTERPRET RESULTS

In the data analysis and interpretation step, program faculty will use the assessment data collected during the academic year to determine whether program graduates have the knowledge or skill described in each learning outcome. This step and the action step that follows are the most important parts of program assessment. This is the point where program faculty determine what the assessment data mean and begin to use that information to improve student learning.

Data should be analyzed and interpreted as soon as possible after collection. Memories of instruction, classroom interaction, and perceptions about student learning may fade between data collection and reporting, limiting the inferences that might be drawn from this information.

When does data analysis and interpretation occur?

As soon as possible after data collection, faculty should begin to analyze and interpret the information collected. This information will be summarized in the assessment report you will submit each year.

The steps below may be used to guide your approach to data analysis.

1. Review the sampling strategy in your assessment plan to help you identify the data to be used. Remember to use data from program majors only; do not include non-majors.
2. Assemble the data to be analyzed.
3. Review the measures and targets from your assessment plan. Working with one measure and one target at a time, calculate the percentage of program majors who met or exceeded the threshold.

Program faculty, as the experts on the curriculum, are the best suited to judge why student learning on a measure or on the outcome met expectations (or not). The steps below may be used to guide your approach to interpretation of your results.

Targets were met.

What does this tell you about student learning in relation to the outcome? Think about any factors that may have contributed to this finding. Maybe you can identify components of the program or the assessment process that you believe contributed to this result. Consult the program curriculum map for information about when—and how—important content was introduced and reinforced and the opportunities for students to apply their knowledge. Perhaps there has been a recent program change that you believe helped to improve student learning related to the measure. You might also believe that the assessment measure(s) used were particularly well-suited to the outcome and provided high-quality information. If you used information from your formative assessment to address issues with student learning prior to this point, that may have contributed as well.

Even though the target was met, you might be less than satisfied with student performance and conclude that one or more of your measures or targets prevented you from identifying that. Maybe the measure used was not the best possible indicator of student knowledge or skill in relation to the outcome. Or maybe you set the target too low and want to revise it in your next assessment to address issues with student learning prior to this point that may have contributed to the positive results.

You might be thinking that a met target means “good enough.” That does not mean your work is done. In the spirit of continuous improvement, start thinking about how to “move the needle” on student learning and plan to set a new target for the next cycle that is slightly higher than the level of performance observed in the current cycle. Just as before, set a new target that is ambitious but attainable and take necessary steps to meet it. Start thinking ahead to Step Five: Act on Results, where you will identify strategies to improve student learning in the next cycle.

Targets were not met.

What does this tell you about student learning in relation to the outcome? Think about any factors that may have contributed to this finding. Were there components of the program, the assessment process that you believe contributed to this result? Consult the curriculum map for the program for information about when—and how—important content was introduced and reinforced, and the opportunities for students to apply their knowledge. Are there foundational

concepts or theories that students did not adequately apply near the end of their program? Was a standardized test used as one of your measures not sufficiently related to your curriculum to adequately measure your students' knowledge? Are the admissions standards for your program too lenient?

Even though the target was not met, you might be pleased with your students' performance on the measures used and now realize that your target was set an unrealistically high level. You will be able to revise your target for the next cycle.

Remember that programs are not penalized for not meeting or more of their targets, but faculty are responsible for identifying strategies to improve student learning in subsequent cycles. We'll learn how to do that in Step Five (Act on Results) of the assessment process. Never respond to an unmet target by lowering the target in the next cycle to ensure that it will be met. Falling short of expectations for student learning provides faculty with the opportunity to gain insights about the curriculum, the students, and other programmatic factors that can be used to drive improvement. Don't miss out on this opportunity!

Mixed results.

If your data indicate that a primary or secondary target was met, and the other was not, what is that telling you? You will need to interpret the information available in order to determine if graduates possess the knowledge or skill of the outcome. Consider the following scenario:

Measure 1 is supervisor evaluations from an internship experience that requires students to apply their skills in a real-world environment. The target states that 80% of respondents will earn an overall rating of "Meets Expectations" or "Exceeds Expectations" from their supervisors. Your data indicates that 85% of the students received overall ratings of "Meets Expectations" or "Exceeds Expectations," so your expectations were met for this target.

Measure 2 is a graduating student survey that asks how well prepared students believe they are for employment in the profession. The target states that 85% of respondents will report that they believe they are "Well Prepared" or "Very Well Prepared" for employment in the field. Eighty percent of respondents reported they felt "Well Prepared" or "Very Well Prepared" for employment in the field, so your expectations were not met for this target.

You might believe that the internship is strongly related to the professional skills needed for entry-level positions in the field and good supervisor evaluations indicated that the students are well-prepared for employment. If so, you might decide to assign greater weight to the evaluations than to the survey responses and conclude that the outcome was met.

Or, you might know from previous experience that the internship supervisors give high ratings to everyone, even students that you know performed poorly. In this case, you might assign greater weight to the survey responses than to the internship evaluations and conclude that the outcome was not met.

As you review your assessment results and consider possible explanations, you should also think about any planned changes (curriculum, instructional, assessment) that were reported the previous year. Were there changes implemented during the current academic year that may have an impact on student learning? Think about what this may be telling you and discuss whether

those changes were implemented. If not, provide an explanation along with any plans for future implementation. For those changes that were implemented, is there any evidence yet about the impact on student learning. It is possible that any impact will not be observable after the first year, so be sure to address any changes that are likely to yield results over the coming years—and your plans to monitor those.

These situations require your professional judgment as faculty. There is no “right” answer. The important thing is for program faculty to interpret the data about student learning and determine whether students have sufficiently demonstrated the knowledge or skill of the outcome. The advice about continuous improvement and moving the needle applies here as well.

A note on continuous improvement.

Accreditation agencies expect us to demonstrate meaningful efforts to achieve continuous improvement in student learning. This does not mean you have to demonstrate dramatic leaps in performance by the next year. Moving the needle with small results from year to year is all you’re expected to do. Set ambitious but attainable goals for year-to-year improvement, identify strategies to produce the improvement, and carry out the planned strategies.

No matter what we do or how well we do it, there’s always a way to do it better!

STEP FOUR: REPORT

It is important that all programs file an assessment report each year. If no data were collected for a program, faculty should provide a reason and document plans for the coming year to ensure that data collection will occur. Most institutions collect assessment reports at the end of the academic year or just prior to the beginning of the new academic year.

A partial assessment report for the B.S. in Justice and Policy Studies program is provided below. Following the initial report is the assignment and scoring rubric (Baker, 2012) used for assessment are provided.

2016-2017 Assessment Results

Program:	B.S. in Justice & Policy Studies
Program Mission Statement:	The mission of the BS in Justice and Policy Studies program is to educate the justice system's future leaders, policy makers, and practitioners. The BS JPS program provides a high-quality education in the history and foundations of the American system of justice as well as the current legal, social, ethical, and administrative skills necessary in an increasingly complex society. BS JPS graduates are prepared for further study at the graduate level or in law school or for employment in the justice profession as researchers, administrators, or law enforcement officers.
Year:	2016-2017
Instructors:	

Phase 1: Beginning of Semester	Program Learning Outcome:	BS JPS graduates will be able to write appropriate enforcement policies.																		
	Direct Measure #1:	Policy development project in JPS-443 (Senior Capstone).																		
	Target:	(P): At least 80% of BS JPS students will earn a mean rating of 3 or higher on the policy development project. (S): No more than 10% of BS JPS students will earn a mean rating of 2 or lower on the policy development project.																		
	Sampling:	All program majors enrolled in JPS-443 (Senior Capstone) in Spring 2017.																		
Phase 2: End of Semester	Data/Results:	<p>32 students were included in the data collection for this major. All program majors enrolled in the course were selected. Non-program majors were excluded.</p> <p>Student papers were scored using a four-point scoring rubric developed by faculty. The assignment and scoring rubrics are attached. Overall scores were distributed as follows:</p> <table><thead><tr><th>Score</th><th>N</th><th>Pct</th></tr></thead><tbody><tr><td>4 (Excellent)</td><td>7</td><td>22</td></tr><tr><td>3 (Good)</td><td>10</td><td>31</td></tr><tr><td>2 (Fair)</td><td>12</td><td>38</td></tr><tr><td>1 (Poor)</td><td>2</td><td>6</td></tr><tr><td>0*</td><td>1</td><td>3</td></tr></tbody></table> <p>* One student did not submit a paper and received no credit for the capstone project.</p> <p>53% of program majors earned an overall score of “3” or higher on the capstone paper. 47% of program majors earned an overall score of “2” or lower on the capstone paper.</p>	Score	N	Pct	4 (Excellent)	7	22	3 (Good)	10	31	2 (Fair)	12	38	1 (Poor)	2	6	0*	1	3
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	Data Summary/Analysis:	<p>Targets not met.</p> <p>As shown in the attached rubric, the assignment was scored on four dimensions: Choice of Topic (10%), History (40%), Analysis (40%), and Writing (10%). Although we only reported a distribution of overall scores above, we also analyzed the spreadsheet of dimension scores that were used to compute the overall scores. A review of dimension scores indicated that, overall, students’ Analysis scores did not meet faculty expectations and tended to produce low overall scores for</p>																		

		students who received satisfactory scores on the other dimensions. Several students who would have earned an overall score of “3” or “4” earned scores of “2” because of their low score on the Analysis dimension. The Analysis dimension was used to measure students’ critical thinking abilities within the context of the JPS major, so this finding suggests that graduating seniors do not possess the expected level of critical thinking ability. This is consistent with student performance observed in other coursework throughout the curriculum for JPS majors.															
Phase 1: Beginning of Semester	Indirect Measure:	BSU undergraduate alumni survey items that ask whether students are employed and how closely related their job is to their undergraduate program at BSU.															
	Target:	(P) 80% or more of employed JPS alumni who respond to the alumni survey will report that their job is either “Somewhat Related” or “Very Related” to their undergraduate program at BSU. (S) No more than 10% of employed JPS alumni who respond to the alumni survey will report that their job is “Unrelated” to their undergraduate program at BSU.															
	Sampling:	All JPS alumni who respond to the alumni survey and indicate that they are currently employed.															
Phase 2: End of Semester	Data/Results:	Fourteen JPS alumni responded to the survey item. The table below shows a distribution of alumni responses to the survey item. 78% of respondents reported that are currently employed in a full-time position that is Very Related or Somewhat Related to their JPS major. 21% of respondents reported they are currently employed in a position that is not related to their JPS majors or that they are unemployed. <table><tr><td>Response</td><td>N</td><td>Pct</td></tr><tr><td>Very Related</td><td>3</td><td>21</td></tr><tr><td>Somewhat Related</td><td>8</td><td>57</td></tr><tr><td>Not Related</td><td>2</td><td>14</td></tr><tr><td>Not Employed</td><td>1</td><td>7</td></tr></table>	Response	N	Pct	Very Related	3	21	Somewhat Related	8	57	Not Related	2	14	Not Employed	1	7
	Response	N	Pct														
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	Data Summary/Analysis:	Primary target met. Secondary target partially met. Program faculty believe that the major is good preparation for graduates to serve in law enforcement-related fields and the survey responses seem to support that belief. Nonetheless, 21% are either unemployed or working in a field that is unrelated to the major. No information is available to explain this pattern.															
	Overall Assessment of PLO:	Although we indicated above that this outcome was partially met, program faculty agree that this outcome actually was NOT met. We consider the capstone paper the strongest indicator of the level of knowledge and skill that our program graduates possess, and we failed to meet either target for that measure of student learning. The data clearly indicate that student weaknesses in critical thinking and to some extent, writing contributed to the results.															

Save copies of the student work, data files, and other information you used for future reference. Do not include student names or other identifying information in assessment reports. If you store student artifacts in your assessment software system, consider concealing names.

Rubric for: BS JPS Capstone Assignment

Description of Assignment: Choose a current social issue that presents an enforcement issue to law enforcement. Write a policy to address enforcement for a municipal police department. Include the following: (1) historic summary of issue with explanation of its development as a social issue and law enforcement issue; (2) analysis of cultural, political, or other societal factors that led to the issue & how policy addresses those factors; (3) discussion of legal aspects surrounding enforcement of the issue—address any constitutional, statutory, administrative, or agency policies related to the issue and discuss how policy will withstand legal challenges; (4) list of who may have strong opinions on the issue or on policy—for each stakeholder group, provide brief description of concerns, how they might react to policy, and how to respond to reactions; and (5) brief discussion of how to evaluate the effectiveness of the policy.

	Excellent (4 pts)	Good (3 pts)	Fair (2 pts)	Poor (1 pt)	Score
Choice of topic (10%)	Identifies a well-defined topic that focuses on a real issue within the local community. Topic selected is a timely and relevant police issue that remains unresolved and is the source of concern or conflict in the community. Scope of the topic is ambitious but manageable within time allotted.	Identifies a topic that focuses on a real issue that does not currently impact the local community. Topic selected may have been previously resolved but project proposes a new solution. Issue has some significance but is not presently the source of concern or conflict within the community. Scope of the topic is appropriate for time allotted.	Identifies a topic that is hypothetical but plausible. Topic is of minor importance to the local community. The scope of the project is overly narrow and limited for the time allotted or overly broad and ambitious for the time allotted.	Fails to identify a topic or identifies a topic with no law enforcement significance. The scope of the project is overly narrow and limited or overly broad and ambitious for time allotted.	
History (40%)	Provides an in-depth and accurate historic summary. Research relies heavily on primary sources. Source are thoroughly and correctly cited. Tracks historical events in a way that provides a clear foundation for the analysis of development of the issue.	Provides a complete and accurate historic summary. Some use of primary sources but relies mostly on secondary sources. Sources are thoroughly and correctly cited. Tracks historical events in a way that permits the reader to understand development of the issue.	Provides a weak but accurate historic summary. Relies entirely on secondary sources. Some sources are not cited, and citation quality is inconsistent. Connections between historical events and current issues are not clearly communicated.	Fails to provide a historic summary or provides a summary that is incomplete or inaccurate. Fails to cite sources. No connections between historical events and current issue.	
Analysis (40%)	Evidence is strong and organized in a way that supports important insights into the issue. May argue for new but reasonable conclusions regarding issue.	Evidence is clear and organized in a way that supports reasonable but not original conclusions about the issue.	Evidence is sparse and not organized in a way that supports reported conclusions.	Evidence is sparse or non-existent. Reports conclusions but does not support them with evidence.	
Writing (10%)	Consistently adheres to rules and mechanics of writing. Errors are rare and do not interfere with meaning.	Usually adheres to rules and mechanics of writing. Occasional mechanical errors do not interfere with meaning but indicate that student could benefit from review of certain issues (e.g., spelling, punctuation, grammar) highlighted on the paper.	Inconsistently adheres to rules and mechanics of writing. The meaning remains clear, but numerous errors are distracting to the reader.	Does not adhere to rules and mechanics of writing. Errors interfere with meaning.	

Total Score:

STEP FIVE: ACT ON RESULTS

What is Action Planning?

Action planning is the step in the assessment process where we use assessment results to identify steps we can take to improve student learning. This is the point where continuous improvement, or “closing the loop,” is achieved. Now that you have collected data from actual student work, analyzed the data, and determined whether aggregated student performance met the targets you set for each outcome, it is time to use that information to identify actions to improve student learning. For each action you identify, you will specify a plan for implementation and identify any resources that will be needed. There are several important guidelines to consider when writing action plans.

1. **For any measure or outcome that is Partially Met or Not Met, you must submit at least one action plan.** Action plans will target areas of student performance that did not meet your expectations and identify steps to improve student learning in the next cycle(s).
2. **For any measure or outcome that is Met, you are encouraged to submit at last one action plan.** Action plans will target areas of student performance that met targets and identify steps to sustain successful initiatives and/or improve these initiatives to improve student learning in the next cycle(s). When you find that you are doing something well, it is important to protect those processes. When we achieve our goals, we still want to continuously improve. Central to continuous improvement is the belief that “no matter what we do, or how well do it, we can always find a way to do it better.” In the language of continuous improvement, we call this “plussing.” Throughout the process of assessment, you should ask yourself, “Did I plus it?”
3. **Action plans flow directly from the data and our analysis of the data.** When developing an action plan, ask yourself what the data suggest you should do next. The connection between the assessment data and the resulting actions must be obvious. Recall that in the assessment planning steps, you worked to identify learning outcomes that are connected to long term program goals, program mission, department mission, and institutional mission. Anyone reading your assessment plan should be able to “connect the dots” and see how the learning outcomes support the activities from which they flowed. That same reader should be able to read your assessment report and see an obvious connection between your assessment results and the action plan(s) you develop.
4. **Action plans ignore pre-conceived wishes, needs, or priorities.** If your department or program has needs that are not DIRECTLY supported by the analysis of assessment data, those needs will have be requested through another process such as the annual program-based budget or program review. Resources for long-term sustainability of programs, such as additional staffing or major equipment, are typically sought through the program review or strategic planning process.
5. **Some action plans will immediately solve a problem in the next cycle, but others are long term and will put you on the path to improvement.** As you considered the factors that contributed to the assessment results you observed, you likely identified factors that took years to develop and may take years to correct. Well-defined action plans will provide the short- and long-term strategies you will use to make needed corrections.

There is no deadline for achieving expected results as long as you demonstrate good faith efforts toward continuous improvement.

6. **Action plans are specific.** A common problem with action plans is that they are often mistaken for general recommendations. Your unit may have resource needs such as personnel or new technology you want. “Updating technological resources” is not an action plan; it is a general recommendation. An action plan takes this recommendation and breaks it down into measurable milestones, each with targeted deadlines. What are the needed resources? Why are they needed? How will you identify them? How will you identify/select the best product? How much will it cost? Who will do this work? When will they get each step done?
7. **Action plans may or may not require additional resources.** For example, you may have concluded that student performance that did not meet a target may have benefitted from additional practice on an important skill. In this case, no additional resources are needed. Your action plan may indicate that you will schedule additional practice sessions next time the course is taught, in which case, additional personnel, learning support systems, equipment, or software might be needed.
8. **Action plans must be tracked over one or more subsequent cycles.** Next year, you will report on the results of any action plans that were implemented as a result of the current assessment process.

When are action plans required?

Measure or outcome was Met. Action plans are encouraged but not required. Consider the following scenarios:

- If the level of performance is consistent with what has been observed in previous years and no significant program changes have occurred, you may conclude that no changes are necessary. It may be time to consider whether to include this outcome in next year’s assessment activities. It is acceptable to include one or more outcomes every year, but some programs decide to replace outcomes that are fully met with others they want to study. You may also decide to raise the bar by setting next year’s target at a higher level and striving to improve student performance on an important outcome. In this case, you will also identify one or more program or curriculum changes to produce the desired improvement.
- If the level of performance is consistent with what has been observed in previous years and recent changes to the program or curriculum have occurred, you may conclude that the changes were not effective. It may also be possible that insufficient time has passed for any meaningful changes to occur. Perhaps the changes were made in lower-level course offerings and those students won’t reach the data collection point until two or more years in the future. Or, the students included in this year’s data collection may have participated in a new initiative that will require more time before the results can be seen. In cases such as these, we recommend that you include this outcome on next year’s assessment plan and that you continue to monitor student performance over the next few assessment cycles, reporting each year on your efforts and any observed changes in

student performance. The lack of immediate improvement in the next assessment cycle is not seen as a failure. The continued monitoring and reporting of your efforts and results is actually viewed in a positive way the assessment office and accreditors.

- If the level of performance has improved since last year and you believe that is the result of recent program or curriculum changes, you may decide to continue the recent changes with no modification. You may also decide to expand the changes if previous implementation was limited to pilot testing. I recommend that you include this outcome on next year's assessment plan and that you continue to monitor student performance over the next few assessment cycles, reporting each year on your efforts and any observed changes in student performance.

In each of these cases, it is important to consider how to sustain what has been working and how to improve upon it.

Measure or outcome was Not Met or Partially Met: action plans are required.

- You may have concluded that students are being admitted into the program who are not prepared for perform at the expected level. To remedy this situation, program faculty might consider implementing a rigorous program of remediation and monitoring to help students succeed in the program. Faculty might also consider revising the admissions standards for the program to ensure they accept students who are likely to succeed.
- You may have concluded that students are weak in a foundational concept that prevents them from performing at the expected level in their upper level coursework. In this case, it can be very helpful to examine the curriculum and identify the specific points at which students were introduced to the troublesome content, where they received reinforcement, and where they had opportunities to apply their learning prior to the assessment measurement point.
- If your faculty do not utilize curriculum mapping this would be an ideal time to begin doing so. A curriculum map is an important diagnostic tool when investigating possible causes for low student performance. Program faculty also use curriculum maps to ensure adequate content coverage across the domain. Curriculum mapping also prevents problems that can arise when some instructors are covering important skills or concepts that may go overlooked by others.
- If a review of the curriculum reveals inadequate coverage in the area of concern, program faculty will decide how to resolve the issue. They may decide to update and coordinate course syllabi. They may create additional opportunities for reinforcement and application at multiple points in the curriculum. They may also decide on changes to course sequences or prerequisites.
- Other common strategies used to address low student performance include establishment of a focused tutoring program, creation of a writing clinic, or scheduled study sessions facilitated by course instructors or graduate students.

Based on the assessment results for JPS Outcome 1, several follow-up actions are indicated:

Students' performance on the capstone project is of great concern to program faculty because it indicates weaknesses in the program graduates' critical thinking and writing abilities. Both of these are important skills in law enforcement and public administration, so it is critical to address these shortcomings immediately.

To address the critical thinking deficiencies, program faculty have decided to strengthen the emphasis on critical thinking throughout the curriculum. In order to do so, they will take the following steps:

1. Develop a curriculum map to identify where students presently have opportunities to acquire thinking skills and where they have opportunities to demonstrate their learning in this area.
2. If the curriculum map indicates inadequate coverage in this area, any necessary course-level changes will be implemented.
3. The JPS program will use the AAC&U Critical Thinking rubric and/or Inquiry and Analysis rubric to evaluate student work throughout the curriculum. In those courses that provide opportunities for students to acquire critical thinking skills or to demonstrate their learning in this area, instructors will use one or both rubrics to evaluate student work and to provide feedback to students.
4. Faculty will develop mechanisms for providing high-quality student feedback.

To address the writing deficiencies, program faculty will replicate the curriculum mapping described above, utilize the AAC&U Written Communication rubric throughout the curriculum to evaluate student work and to provide feedback to students.

Faculty will require students whose coursework does not meet minimum expectations for critical thinking and writing to revise papers and resubmit them for additional review and feedback.

Faculty will also propose the creation of a half-time tutor position. This position will facilitate mandatory study sessions for students whose critical thinking and writing skills do not meet minimum expectations, will review revised and resubmitted assignments, and meet with students to provide one-on-one feedback and reinforcement.

Faculty do not believe that the survey results provided meaningful information about program graduates' abilities on Outcome 1. They will replace this measure in the assessment plan for the next cycle with a survey item that asks how well students believe the program contributed to their critical thinking ability.

Two examples of completed action plans are shown below.

Phase 1: Beginning	Program Learning Outcome:	BS JPS graduates will be able to write appropriate enforcement policies.
GCCC Learning Assessment Policy-Institutional Effectiveness Manual Office of Institutional Effectiveness & Accountability		
Student Learning Assessment Team		

of Semester	Direct Measure #1:	Policy development project in JPS-443 (Senior Capstone).																		
	Target:	(P): At least 80% of BS JPS students will earn a mean rating of 3 or higher on the policy development project. (S): No more than 10% of BS JPS students will earn a mean rating of 2 or lower on the policy development project.																		
	Sampling:	All program majors enrolled in JPS-443 (Senior Capstone) in Spring 2017.																		
Phase 2: End of Semester	Data/Results:	<p>32 students were included in the data collection for this major. All program majors enrolled in the course were selected. Non-program majors were excluded.</p> <p>Student papers were scored using a four-point scoring rubric developed by faculty. The assignment and scoring rubrics are attached. Overall scores were distributed as follows:</p> <table><tr><th>Score</th><th>N</th><th>Pct</th></tr><tr><td>4 (Excellent)</td><td>7</td><td>22</td></tr><tr><td>3 (Good)</td><td>10</td><td>31</td></tr><tr><td>2 (Fair)</td><td>12</td><td>38</td></tr><tr><td>1 (Poor)</td><td>2</td><td>6</td></tr><tr><td>0*</td><td>1</td><td>3</td></tr></table> <p>* One student did not submit a paper and received no credit for the capstone project.</p> <p>53% of program majors earned an overall score of “3” or higher on the capstone paper. 47% of program majors earned an overall score of “2” or lower on the capstone paper.</p>	Score	N	Pct	4 (Excellent)	7	22	3 (Good)	10	31	2 (Fair)	12	38	1 (Poor)	2	6	0*	1	3
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1 (Poor)	2	6																		
0*	1	3																		
Data Summary/Analysis:	<p>Targets not met.</p> <p>As shown in the attached rubric, the assignment was scored on four dimensions: Choice of Topic (10%), History (40%), Analysis (40%), and Writing (10%). Although we only reported a distribution of overall scores above, we also analyzed the spreadsheet of dimension scores that were used to compute the overall scores. A review of dimension scores indicated that, overall, students’ Analysis scores did not meet faculty expectations and tended to produce low overall scores for students who received satisfactory scores on the other dimensions. Several students who would have earned an overall score of “3” or “4” earned scores of “2” because of their low score on the Analysis dimension. The Analysis dimension was used to measure students’ critical thinking abilities within the context of the JPS major, so this finding suggests that graduating seniors do not possess the expected level of critical thinking ability. This is consistent with student performance observed in other coursework throughout the curriculum for JPS majors.</p>																			
Action Plan (if needed):	<p>Ensure adequate instructional and assessment coverage for critical thinking:</p> <p>Students’ performance on the capstone project revealed weaknesses in program graduates’ critical thinking which is an important skill in the law enforcement and public administration profession. To address this, program faculty will study where in the curriculum students have opportunities to acquire critical thinking skills and where they have opportunities to demonstrate their developing skills. This information will be used to identify and address any gaps in instruction and to</p>																			

		provide students sufficient opportunities to demonstrate their critical thinking skills and receive feedback from faculty.
	Responsible Party:	<ol style="list-style-type: none"> 1. Develop a curriculum map to identify where students presently have opportunities to acquire critical thinking skills and where they have opportunities to demonstrate their learning in this area (JPS faculty working group) 2. If the curriculum map indicates inadequate coverage in this area, any necessary course-level changes will be implemented (all JPS faculty) 3. Use the AAC&U Critical Thinking rubric and/or Inquiry and Analysis rubric to evaluate student work and provide feedback throughout the curriculum (all JPS faculty) 4. Faculty will receive training on high-quality student feedback (all JPS faculty)
	Completion Date:	End of 2017-2018 academic year
	Resources Needed:	No additional resources required
	Action Plan (if needed):	Create half-time writing tutor position Students' performance on the capstone project revealed weaknesses in program graduates' writing skills which is an important skill in the law enforcement and public administration profession. To address this, the JPS program proposes to hire a half-time writing tutor who will conduct writing workshop, review revised submissions, and provide feedback to students.
	Responsible Party:	<ol style="list-style-type: none"> 1. Obtain approval to create new position (JA department chair) 2. Work with HR to create position and post announcement (JA department chair & HR director) 3. Review applications, conduct interviews, appoint person (JPS search committee) 4. Train new hire (JA department chair)
	Completion Date:	Start of spring 2018 semester
	Resources Needed:	One half-tutor is needed. Base salary = \$20,000/year. Benefits = \$6,000/year. Although this is a half-time position intended to support JPS students specifically, the JPS faculty are willing to share this valuable resource by permitting students from other JA programs to attend the writing workshops. This position can be funded through the JPS law enforcement training grant from the state, so no funds are requested from the Department's general budget.

One of my action plans did not require any additional resources, but the second one required creation of a new position. Be sure to include detailed action plans for all planned follow-up, regardless of whether you are requesting any additional resources. Identifying, implementing, and tracking follow-up actions are at the heart of continuous improvement. This process will provide you with important information about student learning on program outcomes and whether efforts to improve are successful. The second action plan that includes a resource request for a new position has detailed justification and cost and even identifies a grant account that could be used. ***This level of detail is very important.*** Action plans from academic and non-academic assessment, program review, and other processes should drive planning and budget decisions within your program, your unit or division, and the overall institution. Detailed rationale and justification form the persuasive argument necessary to demonstrate that your request should receive approval. I have received many action plans that contain resource

requests for “some more computers and software, plus another full-time person. Total cost: around \$10,000 plus whatever staff salaries are.” **Don’t do this!** Name the specific hardware and software you’re requesting, with cost estimates (not “guesstimates”) as close as you can get them. Precise information, with justification that includes benefit to the unit or institution and any expected savings in time or resources, increase the likelihood that your request will be approved. It also gives management a dollar value to include in their budget calculations. If you know of a funding source that would cover the expense, it’s helpful to include that information.

Exercise 9: Your Turn: Action Plan for Measure 1 (Policy Development Project)

Two possible action plans for Measure 1 are provided above. Use the space below to write one more action plan to address either the critical thinking or writing issues identified in the assessment results.

Action Plan (if needed):	
Responsible Party:	
Completion Date:	
Resources Needed:	

Action Plan Tracking

Action plans must be tracked over at least one subsequent assessment cycle. Include any PLOs with ongoing action plans on the next year’s assessment plan. Be sure to implement the action plan outlined in the previous cycle and collect and report on that data in the current cycle. Some PLOs may have longer time tables for tracking as changes to curriculum or courses may take several semesters before impacting sophomore students.

STEP ONE: PLAN ASSESSMENT

The last step of the assessment cycle is also the first step in the new assessment cycle. The annual assessment report will include an updated assessment plan with the outcomes to be

measured in the new cycle and the measures, targets, and sampling strategies to be used. Updating your assessment plan represents the completion of an assessment cycle and the beginning of a new one, reminding us of the cyclical nature of assessment. The updated assessment plan may include the same outcomes used during the previous cycle or it may include new ones. The information in *Step One: Assessment* and *Step Five: Act on Results* of this handbook should guide your choice of outcomes for the new cycle.

When planning assessment for the new cycle—and possibly for cycles two or more years in the future—it may be necessary to think about action plans in progress that may not produce immediate results. Consider the case of a capstone project used to measure student learning on one or more outcomes. Program faculty may identify some weakness in students' knowledge or skill on one of the outcomes and implement instructional strategies in a foundation course where the concept is first introduced. If program majors typically take that foundational course in their freshman years or sophomore years, it may be two or more years until students who experienced the reinforcement complete their capstone projects and demonstrate the anticipated improvement.

Don't let results that are staggered across multiple years become confusing. The action plan tracking section of the annual assessment report will help you to keep up with these.

Appendix 1

Glossary

For the purpose of understanding the terms and acronyms used in this document, please refer to this section.

Academic Assessment: used by faculty to study whether students who graduate have mastered the intended learning outcomes for a degree or certificate program

Assessment: the systematic, cyclical process of continuous improvement: includes identifying goals and outcomes, planning and executing measurements of those outcomes, analyzing the resulting data, using that data to make decisions, implementing those changes, and repeating the process

Annual Program Assessment: annual assessment of program learner outcomes (see the cycle outlined in Assessment); seeks to reveal areas of strength and improvement across an entire program of study (for example, a program assessment would consider the AAS in Welding)

Benchmark: a point of comparison against which to judge one's performance; past-performance data can be used as a baseline benchmark as can data from another (comparable, exemplary) program.

Co-Curricular Assessment: used by student support personnel to study students' learning that occurs as part of activities outside of the classroom.

Coordinator of Assessment: position held by a full-time faculty member who assists in the coordination, planning, execution, and revision of academic assessment processes and policies; facilitates communication between faculty and the Office of Institutional Effectiveness, Planning, and Research.

Course Grades: while valuable, provide little reliable data for assessment as they are the accumulation of a student's sum performance in a course (including multiple learning outcomes as well as other factors (like attendance and participation))

Course Assessment: a semester report that assesses student learning at the course level each semester; considers Student Learner Outcomes for each course and seeks to reveal areas of strength and improvement in teaching each course (for example, a course assessment would consider ENGL 101)

Curriculum Mapping: a strategy for aligning course objectives and program objectives; provides a method of checking and revising course sequencing as well as determining alignment of courses with program and institutional objectives

Degrees: GCCC has four degrees: Associate of Arts, Associate of Science, Associate of Applied Science, and Associate of General Studies

Department: group of faculty in a common academic area; may oversee one or multiple programs and/or focus on one area of general education courses (Art, Psychology, Speech, etc.)

Direct Measurement: Measures that require students to demonstrate their knowledge and skills in response to the measurement tool. Examples include achievement tests (objective tests), student work (essays, presentations, portfolios, course assignments), observations or case studies, and performances.

Division: a collection of programs from related disciplines: Business & Technology, Communications; Fine Arts & Humanities; HPER; Math; Science; Social Science; and Technical Education

Effectiveness: whether a department performs the core functions stated in its performance objectives.

Efficiency: whether a department performs the core functions with minimum wasted effort and expense.

Essential Skills: the General Education Outcomes; the five institution-level learning objectives of GCCC: Written Communication, Oral Communication, Critical Thinking, Social Responsibility, and Diversity

5-Year Comprehensive Program Review: in-depth analysis of a program conducted on a 5-year rotation; divided into academic and non-academic program reviews; non-academic departments include Counseling and Advising, Library, etc.; utilizes data and analysis from the Annual Program Assessments but is more comprehensive in scope

General Education (Gen Ed): program of study which all degree-seeking students partake in at GCCC; NOT the set of core courses required of most graduates; designed to provide students a strong basis for learning and multiple opportunities to develop the Essential Skills

Gen Ed Outcomes: program learning outcomes for the general education program; also referred to as Essential Skills

Indirect Measurement: measures that ask students (or others such as employers) to reflect on students learning rather than demonstrate it. Examples include self-report methods such as surveys, interviews, and focus groups. For non-academic assessment, indirect measures rely on the opinion or self-reporting of experiences related to objectives and outcomes.

Institutional Effectiveness: the extent to which an institution achieves its mission and goals; monitored through ongoing, integrated, institution-wide, research-based planning and evaluation processes that (1) incorporate a systematic review of institutional mission, goals, and outcomes; (2) result in continuing improvement of institutional quality; and (3) demonstrate how well the institution is accomplishing its mission.

KBOR: Kansas Board of Regents

Non-Academic Assessment: used by staff to study how effectively administrative departments perform their intended functions. Non-Academic departments are the various offices that perform administrative and student support functions. They include admissions, human resources, facilities, security, etc. as well as top-level administrative divisions.

Office of Institutional Effectiveness & Accountability: the responsibilities are accreditation, compliance with state and federal mandates, strategic planning, planning, assessment (of programs and comprehensive program review), and institutional research

Programs: a program of study in a particular area; may include degrees (A.A. in English) as well as certificates; a single department may oversee multiple programs (Agriculture: AS, AGS & AAS in Agriculture plus various certificates).

Program Learner Outcomes (PLO): learning objectives for a program; skills and knowledge program graduates should acquire

Satisfaction: how well a department meets the expectations of those it serves in relation to core functions

SLAT: Student Learning and Assessment Team; faculty-driven committee tasked with creating, implementing, and revising the overall academic assessment policies, procedures, and tools at GCCC.

Student Learner Outcomes (SLO): learning objectives for a particular course; skills and knowledge students should acquire in the course; may be set by an outside institution (KBOR or an accrediting body) or may be created internally

Target: point of reference for measurement: a standard of achievement against which to evaluate or judge one's performance.

Vice President of Institutional Effectiveness & Accountability: employee responsible for overseeing the assessment processes of campus including institutional planning and evaluation of processes based upon research and data

Appendix 2: Essential Skills

The definitions and rubrics for each of the five GCCC Essential Skills are available on the Faculty Policies & Procedures Canvas shell.

Appendix 3: Resources

Assessing Performance: Designing, Scoring, and Validating Performance Tasks. (Johnson, Penny, & Gordon) ISBN-13: 978-15935859886 ISBN-10: 1593859880

Constructing Written Test Questions for the Basic and Clinical Sciences. Free PDF download from the National Board of Medical Examiners (NBME). Although written specifically for medical school faculty, it is one the best information resources about how to write good test items for any discipline. To download, go to the web site, and find it I the Lessons section. You will have to register with your information and create a username/password, then click through the options to “purchase” it. It will bring you to a credit card payment page but show the amount due as zero and let you click past that page without entering a credit card. You can then download the manual.

<https://www.my.nbme.org/Login.aspx>

DQP: Degree Qualifications Profile. Lumina Foundation project that define what students should know and be able to do at the associate, bachelor’s and master’s levels. Information, free PDF downloads and other publications available on their website.

<http://degreeprofile.org/>

Excellence in Assessment (EIA) Designation. A NILOA initiative to recognize institutions with outstanding assessment practices.

<http://www.learningoutcomesassessment.org/eiadesignation.html>

National Community College Benchmark Program (NCCBP). More than 150 benchmarks for 400+ community colleges nationwide.

<https://www.nccbp.org/>

National Institute for Learning Outcomes Assessment (NILOA). An initiative led by key assessment scholars to disseminate information about good assessment practice. They maintain a website that contains a variety of good information and have a monthly e-mail newsletter with current issues in assessment.

<http://www.learningoutcomesassessment.org/>

National Student Clearinghouse. More than 3,600 public and private colleges and universities participate, with data for more than 98% of all students nationwide (current and historic). Useful for degree verification, tracking of former students, and more.

<http://www.studentclearinghouse.org/>

Noel-Levitz. Student Satisfaction Inventory (SSI), Non-cognitive assessment, student retention and others.

<https://www.ruffalonl.com/>

NSSE, CCSSE, FSSE. National Survey of Student Engagement, Community College Survey of Student Engagement, Faculty Survey of Student Engagement. Nationally normed, measure student engagement from student and faculty perspectives.

nsse.indiana.edu/

<http://www.ccsse.org/>

fsse.indiana.edu/

Valid Assessment of Learning in Undergraduate Education (VALUE) rubrics. Set of 16 rubrics from AAC&U for evaluating student work. Can be modified to fit individual need. Free PDF download.

<https://www.aacu.org/value-rubrics>