

# Student Learning Outcomes Assessment Handbook

Montgomery College  
Montgomery County, Maryland

Written By Rebecca Cartwright, Ken Weiner, and Samantha Streamer-Veneruso

Revised August, 2007

# Student Learning Outcomes Assessment Handbook

## Montgomery College

---

<b>Part One- Overview and Background of Outcomes Assessment</b>	<b>1-8</b>
Overview of Outcomes Assessment	1-3
What is Outcomes Assessment?	
Who benefits from outcomes assessment?	
Why aren't grades enough?	
Montgomery College's Outcomes Assessment Approach	3-6
What values guide Montgomery College's approach to outcomes assessment?	
What is Montgomery College's approach to outcomes assessment?	
What priorities guide our approach?	
What are the key elements of the SLO assessment process that honor these priorities?	
Common Concerns about Outcomes Assessment	6-8
Does this process affect my academic freedom?	
Will this be more work for us?	
Will assessment information be used to evaluate faculty?	
Isn't the primary purpose of outcomes assessment to find fault with things?	
Will the results have statistical validity and will they be useful?	
Isn't this just a slippery slope leading to standardized testing?	
Will the results determine whether my course remains in the Gen Ed program?	
Is this just another academic fad that will be gone in a couple of years?	
<b>Part Two- A Closer Look at the Outcomes Assessment Process</b>	<b>9-19</b>
The Montgomery College Student Learning Outcomes (SLO) Assessment Process	9-13
What are the minimum expectations and requirements?	
The OA Process - the Nitty Gritty	
Definition of key terms	
OA Forms and Submissions	
Who's responsible and for what?	13-14
Outcomes Assessment Tracks	14-16
Implementing The Assessment Plan	16-17
Recommendations-Closing the Loop	18-19
<b>Part Three- Developing an Outcomes Assessment Plan</b>	<b>20-32</b>
Student Learning Outcomes	20-24
Where do we start?	
What makes a good outcome?	
How do we choose which SLOs to assess?	
How do we include a Gen Ed competency in our SLOs?	
Supporting Student Activities	25-26
Assessment Methods and Instruments	26-28
How do we develop an assessment method and instrument?	
Scoring Tools	29-31
<b>Appendix A- Sample Forms and Checklists</b>	<b>32-55</b>
<b>Appendix B- General Education Information</b>	<b>56-61</b>
<b>Appendix C- Additional Resources</b>	<b>62-72</b>

# Part One-Overview and Background of Outcomes Assessment

---

Part One of this handbook

1. explains outcomes assessment;
2. gives the background of Montgomery College's Outcomes Assessment Process;
3. explores common concerns about Outcomes Assessment.

In recent years, institutions of higher education across the country, and internationally, have recognized that a full commitment to teaching and learning must include assessing and documenting what and how much students are learning and using this information to improve the educational experiences being offered. While there is certainly a strong external drive for outcomes assessment, Montgomery College's approach to outcomes assessment focuses primarily on improving student learning. In many ways, outcomes assessment is a common sense process that we, as educators, follow already. When we articulate the main goals for a course, check to see whether students achieved them, and then use the results to make our courses better, we're on the way to outcomes assessment. MC's outcomes assessment approach takes advantage of what we are already doing by formalizing the process and broadening our individual efforts.

---

## Overview of Outcomes Assessment

---

### What is Outcomes Assessment?

Outcomes assessment is the process of collecting information that will tell an organization whether the services, activities, or experiences it offers are having the desired impact on those who partake in them. In other words, is the organization making a difference in the lives of the individuals it serves?

In higher education, at its simplest, outcomes assessment has three stages:

1. **Defining** the most important goals for students to achieve as a result of participating in an academic experience (outcomes)
2. **Evaluating** how well students are actually achieving those goals (assessment)
3. **Using** the results to improve the academic experience (closing the loop)

### Who benefits from outcomes assessment?

One of the great advantages of outcomes assessment is that when done in a systematic way, it has benefits for people throughout the institution, from our students to the faculty to the administration.

### For students, outcomes assessment will

- communicate clear expectations about what's important in a course or program
- inform them that they will be evaluated in a consistent and transparent way
- reassure them that there is common core content across all sections of a course
- allow them to make better decisions about programs based on outcomes results

### For faculty, participating in outcomes assessment will

- help them determine what's working and what's not working in their courses or programs
- facilitate valuable interdisciplinary and intercampus discussions
- provide powerful evidence to justify needed resources to maintain or improve programs
- allow them to tell their story to individuals outside their area (e.g. administrators, politicians, employers, prospective students, transfer institutions)
- provide reassurance that all faculty teaching a particular high demand course agree to address certain core content

### For administrators, implementing college-wide outcomes assessment will

- demonstrate an institutional commitment to continually improving the academic programs and services offered by the college.
- provide valuable data to support requests for funds from state and local government and private donors.
- demonstrate accountability to funding sources.
- provide valuable data for academic planning and decision-making.
- enable them to inform elected officials, local businesses, and potential donors about the college's impact on our students and our community in a very compelling and convincing way.

Finally, systematic outcomes assessment is now a **requirement for accreditation** by all higher education accrediting organizations. In fact, two of Middle States' fourteen standards of excellence in higher education speak directly to the importance of creating a culture in which institutional effectiveness and student learning are highly valued by the college community.

### **Why aren't grades enough?**

When faced with the news that it's your discipline's turn for outcomes assessment, it is tempting to ask why you can't just look at final grades to determine whether a course is successful. Although counting letter grades is easy, it provides neither consistent nor meaningful information about student success in a multi-section course.

In outcomes assessment, the terms "scoring" and "grading" have different meanings. Scoring refers to the process of marking an assessment instrument to get data about how

well the course has done at achieving its outcomes. Grading is the process of marking an assessment instrument for the purpose of assigning a student a grade for the course. Scoring needs to be done consistently across all sections; grading can be done differently in each section if instructors desire. In no way, does the OA scoring process infringe on an instructor's grading.

Unless every instructor teaching a particular course assigns final course grades in exactly the same way (same assignments, same exams, same weights, same grading approach), you cannot be confident that one section's A is the same as another section's A. More significantly, final grades are an aggregate assessment of a student's entire work for the course, often including attendance and class participation. Consequently, looking at a distribution of grades will provide little, if any, useful information about the degree to which students are learning those things that instructors deem most important in the course.

Grades do not provide

- Specific information about students' performance on discrete tasks
- Meaningful data across sections
- Objective student data which can be used for improvement of student learning or recognition of student achievement

It is critical, however, that students do not approach OA assignments or exam questions thinking they are of no consequence, as they would likely not take them seriously thus creating a false impression regarding the effectiveness of our courses. Regardless of how instructors grade the instruments, they should communicate to students the value of the outcomes and the instruments used to assess them.

---

## **Montgomery College's Outcomes Assessment Approach**

---

### **What values guide Montgomery College's approach to outcomes assessment?**

1. Faculty are best suited to determine the intended educational outcomes of their academic programs and activities, how to assess these outcomes, and how to use the results for program development and improvement.
2. Ultimately, every academic unit should be expected to engage in outcomes assessment. Outcomes assessment should not be performed only in selected academic areas of the College.
3. The results of outcomes assessment should be used to evaluate the effectiveness of academic programs and activities, and student services, and not the performance of individual faculty or staff.

4. Outcomes assessment should be as simple and manageable as possible. The process cannot become so onerous that it hampers or interferes with the delivery of the educational experience that it attempts to assess and improve.
5. Faculty must use the information collected to develop and improve academic programs, that is, they must “close the loop.” If outcomes assessment is used primarily as a reporting tool, then this effort will have been deemed a failure.
6. Central and campus administrators must provide leadership and accountability to the process.
7. Outcomes assessment must be ongoing and performed on a regular basis within each academic area; it cannot be episodic. In essence, it must become an academic habit.

### **What is Montgomery College’s approach to outcomes assessment?**

There is no one right way to implement outcomes assessment. Across the country colleges have proceeded in a variety of ways, each adopting an approach they feel is best suited to the circumstances of their institution.

Within the outcomes assessment process at Montgomery College, outcomes have been categorized into two main types: student learning outcomes and student progress outcomes.

*Student learning outcomes* (SLOs) directly describe what a student is expected to learn as a result of participating in academic activities or experiences at the College. They focus on knowledge gained, skills and abilities acquired and demonstrated, and attitudes or values changed. These, of course, are the outcomes that are of most interest to educators, but they are also the most challenging to measure, and may require a number of iterations before the data collected are deemed valid and reliable.

*Student progress outcomes* (SPOs), conversely, reflect student progress in course sequences; in transfer, certificate, and degree programs; in majors; and in workplace experiences after they leave Montgomery College. Although not directly descriptive of what a student has learned while at the College, student progress outcomes nonetheless provide indirect measures of student learning, as well as describing outcomes to our programs that the students themselves may consider to be most important.

Because of their immediate connection to assessing student learning, the primary emphasis of the current outcomes assessment process and this handbook is SLOs.

### **What priorities guide our approach?**

Our SLO assessment approach is guided by three priorities:

- Directly involving *all* faculty who teach the course being assessed in the assessment process itself
- Making the process as unobtrusive as possible in how faculty plan, manage, and deliver their courses

- Minimizing potential sources of biased data by maximizing consistency in performing the assessments

### **What are the key elements of the SLO assessment process that honor these priorities?**

#### Courses should have a set of college-wide common core learning outcomes

Course outcomes are based on and mirror the student learning expectations agreed on by the discipline when the course was last approved by the Collegewide Curriculum Committee. Faculty from the discipline are asked to agree on the most important learning outcomes, three of which will be assessed for that course during each assessment cycle. This does not mean that faculty will be required to teach identical content across the entire course, nor does it dictate how faculty choose to deliver any of the course content to their students. What is expected is that during an assessment cycle, the same course outcomes will be assessed using the same methods regardless of where or how it is taught.

#### The entire discipline participates

Assessing learning outcomes for courses should be important to all faculty in the discipline. Therefore, the process is structured to engage all discipline faculty directly in the assessment activity, as well as in discussions related to the process. Although this approach may require more effort than sampling specific sections or simply soliciting volunteers, it is more equitable and the participation of all faculty results in a full appreciation of the importance of the core learning outcomes, the worth of assessing them, and the value of coming together for meaningful discussions about both.

#### Embed assessment instruments into the course

When assessing student learning outcomes in a course, the easiest and least obtrusive way for faculty and students is to weave the assessment instrument (assignment, exam questions, etc.) into the course rather than have an obvious, add-on test or assignment that doesn't blend naturally into the course.

In outcomes lingo, course-embedded assessments are assessments that make use of the actual work that students produce in their courses. The assessments may simply select from work that students do in various courses or may be designed overtly for assessment purposes and then incorporated into the courses. The faculty members teaching the courses give grades to the students, but the work selected for assessment is evaluated based on SLOs.

#### Ensure consistency through common outcomes, common instrument, common scoring

Faculty members are not expected to teach every section of a multi-section course in exactly the same way. However, the best way to get meaningful and reliable results for outcomes assessment is to have consistency on both the outcomes being assessed and the method by which they are assessed. For this process, that means establishing a set of college-wide common core outcomes for a course, assessing three of these in a given

assessment cycle in all sections using a common instrument, and scoring the assessments using a common rubric or scoring approach.

Remove any incentive for individual faculty to bias the results in their favor

It is natural for faculty to be concerned about how assessment data about their students will be reported and used. The College, in a written statement endorsed by the two Executive Vice Presidents, has stated unequivocally that data collected as part of this process will never be reported in a way that would allow it to be linked to an individual student or faculty member, and that assessment results will not be used in the faculty evaluation process. These guarantees, combined with the use of a common assessment instrument and scoring rubric should remove any incentive for individual faculty members to bias the assessment process in order to “make themselves look good.”

## **Common Concerns about Outcomes Assessment**

---

Throughout this handbook, you will find information and advice on how to work through some potential stumbling blocks in the outcomes assessment process. In addition to these logistical concerns, some faculty members may be concerned about some of the following broader issues.

### **Does this process affect my academic freedom?**

Nothing inherent in the Montgomery College outcomes assessment process interferes or violates the academic freedom of the instructor. Assessing outcomes is simply about faculty determining whether students are learning those things they deem most important, and then using the information to make changes where appropriate. Nothing in the Montgomery College process dictates in any way how faculty choose to deliver the course content or how they grade their students. Requiring faculty every few semesters to use a common instrument to assess three core course outcomes is far less proscriptive than asking faculty to use a common text, a common requirement in higher education that is generally accepted by faculty as reasonable.

### **Will this be more work for us?**

To some degree yes, but we are committed to not allowing the outcomes assessment process to become burdensome in a way that will interfere with a faculty member’s commitment to teaching. The vast majority of time faculty will commit to this process will be confined to intra and inter-disciplinary discussions of what are the most important student outcomes, how these can best be assessed, and what improvements, if any, are suggested by the assessment results. Faculty will not be expected to handle the technical aspects, e.g., data collection and analysis, for this process.

### **Will assessment information be used to evaluate faculty?**

Absolutely not. This process is about assessing the effectiveness of programs, courses, and services not individuals. In fact, mechanisms and guarantees have been put in place to ensure that the results will *never* be reported in a way that will permit them to be associated with any individual, faculty or student. Please see **Appendix B** for the complete “Protocol for Collection and Use of the Student Learning Outcomes Assessment Data at Montgomery College.”

### **Isn't the primary purpose of outcomes assessment to find fault with things?**

No, this is not about finding fault with programs, courses, or individuals; it is about agreeing on what is most important in our courses, communicating that to all stakeholders, and finding out what's working and what's not. Great assessment results can and should be used to trumpet success, market programs, motivate faculty and students, and justify increased resources. Less than satisfactory assessment results should lead to improvements in programs, courses, and services.

### **Will the results have complete statistical validity and will they be useful?**

The short answers are no and yes. While the results will not have the kind of statistical validity or reliability that would make a statistics professor happy, they will most certainly be useful in the way this process intends – to give faculty members meaningful information about how their courses are doing at achieving the goals they themselves defined. Achieving greater validity and reliability would require that a carefully selected random sample of papers be scored by a team of trained evaluators, thus minimizing the direct participation in the process by the vast majority of faculty. The MC assessment process makes a trade-off between complete statistical reliability and faculty involvement.

### **Isn't this just a slippery slope leading to standardized testing?**

Absolutely, and unequivocally, not!! Such a direction has never even been contemplated by anyone, including administrators, involved with outcomes assessment at Montgomery College. For further reassurance, know that **the Middle States Association**, strong advocates of outcomes assessment, **do not advocate standardized testing**.

### **Will the results determine whether my course remains in the Gen Ed program?**

The College is committed to taking a serious look at the current structure of our General Education Program. This review will be under the auspice of the General Education Committee and will most certainly be a long-term initiative. Such a study may lead to decisions about which courses are added, deleted, or remain on the distribution lists, or even whether distribution lists provide the best structure for a general education program.

The degree to which individual courses support specific competency areas are likely to be only one component in being recognized as a Gen Ed course.

**Is this just another academic fad that will be gone in a couple of years?**

Not likely. The outcomes assessment movement has been a serious one for at least a decade, and its momentum is growing not waning. Every higher education accreditation agency across the country now includes the assessment of learning outcomes as one of their highest priority criterion. The Middle States Association, being one of the last to do so, has just revamped its accreditation standards so that they reflect and emphasize the importance of creating a culture of outcomes assessment within the institutions it oversees.

**Most Important Things to Remember About Outcomes Assessment at Montgomery College**

1. Outcomes assessment improves student learning by systematically evaluating student performance on specific learning outcomes.
2. The MC OA process is based on college-wide common core learning outcomes.
3. Outcomes assessment at MC is faculty driven and course embedded.
4. It is an on-going, not episodic, process.
5. It is about evaluating the effectiveness of programs, courses, and services, not individuals.

## Part Two: A Closer Look at the Outcomes Process

---

Part Two of this handbook

1. explains the MC outcomes assessment process;
2. identifies the requirements and expectations for outcomes assessment at Montgomery College;
3. gives schedules and timelines for the complete OA process;
4. describes responsibilities in outcomes assessment at MC.

Outcomes Assessment at Montgomery College is generally a two\_year process of assessing course specific and Gen Ed outcomes. Courses participate under the aegis of General Education outcomes assessment, academic area outcomes assessment or voluntarily. Faculty workgroups develop OA plans to assess specific discipline selected Student Learning Outcomes (SLO). Major stages of MC's OA process are **planning, piloting, full implementation, and recommendations.**

---

### The Montgomery College Student Learning Outcomes (SLO) Assessment Process

---

#### What are the minimum expectations and requirements?

In designing this process, we tried to balance making it as easy as possible with making it valid, reliable, and meaningful. To that end, below are the minimum expectations and requirements for completing an outcomes assessment project.

- **Assess at least three outcomes** – If your course is participating in General Education outcomes assessment, one or two of your outcomes will be based on Gen Ed competencies.
- **Obtaining faculty consensus** – For the project to be a success, it is essential that there be faculty consensus about the outcomes and the plan to assess them. The faculty workgroup members and their department chairs will be the leaders in helping foster this consensus. Discipline Lead Deans will be asked to work with their respective faculty to accomplish consensus.
- **Common definition of outcomes** – All faculty teaching the course must share the same definition for these three outcomes, regardless of who teaches it or where.
- **Common assessment instrument and scoring scheme** – All faculty members must use a common assessment instrument and score it the same way for the purposes of the outcomes assessment project. As discussed in Part I, faculty members may grade the assessment instrument however they wish for the purposes of calculating their own course grades.

- **Share outcomes with students** – For students to take the process seriously and for the process to be as meaningful as possible, students must be aware of the expected learning outcomes for the course and how their performance on these will be assessed. All this should be communicated early in the course, either as part of a syllabus or through some other printed material. If a rubric will be used to score the assessment, students should receive this as well, and before they participate in the assessment.
- **Data collection process** - Faculty participating in the assessment are expected to record and submit student scores electronically on class spreadsheets provided to them by the Collegewide Outcomes Assessment Team (COAT).
- **Use the information** – The power of outcomes assessment is the importance it gives to “closing the loop.” This means using the results of an outcomes assessment project to improve whatever it was that was being assessed. Thus, it is vital that the discipline discuss the results and use them to celebrate and build on its strengths and to discuss and remediate its weaknesses.

## **The OA Process - the Nitty Gritty**

### Typical two-year timeframe

In general, an outcomes assessment project will take two years to complete, from planning to implementing recommendations. Disciplines participating in Academic Area OA and Gen Ed OA can expect to follow the timeframe below.

- Semester 1 – planning for the OA project; completing an OA plan
- Semester 2 – piloting the SLO plan in selected sections; revising the OA plan as needed
- Semester 3 – full implementation of the OA plan in all sections of course
- Semester 4 - data analysis and report (by College-wide Outcome Assessment Team), and making observations and implementing recommendations based on results.

Generally, Semester 1 will be a fall semester. Some disciplines may need to move away from the recommended schedule as they get further into the process. If you think this might happen, talk to your Faculty Cadre member to plan a revised schedule.

If disciplines want to initiate an outcomes assessment project outside of Gen Ed OA or Academic Area OA, they will not be held to the above timeframe. However, no matter what schedule you follow, the semester by semester planning checklists will be a valuable resource to you. (See **Appendix A**)

## Definition of key terms

- **Student learning outcome (SLO)** – An outcome that describes what a student is expected to learn as a result of participating in academic activities or experiences at the College. SLOs focus on knowledge gained, skills and abilities acquired or demonstrated, and attitudes or values changed.
- **Dimensions** – The key aspects of the outcome on which the students will be evaluated. For example, an outcome about effective writing might have mechanics, style and thesis development as its dimensions. Generally speaking, you should have between 1 and 5 dimensions for each outcome.
- **Assessment method and instrument** – The assessment method is the general assessment approach used to measure whether students have achieved an outcome, such as a test (multiple choice, short answer, and/or essay questions) or an assignment (short reaction paper, research paper, speech, multimedia project, etc.). The assessment instrument is the actual product that is handed out to students, specifically geared to assess whether students have achieved particular outcomes.
- **Rubric** – A printed set of scoring guidelines (criteria) for evaluating work (a performance or a product) and for giving feedback to students. Generally, rubrics specify the criteria for each level of performance on each dimension of the learning outcome.
- **Data breakout variables** – Student demographic or course related variables, such as gender, credits completed, or whether the course was taught by a full-time instructor or adjunct, that might significantly influence the likelihood of a student achieving the outcome. It is often very useful to break-out the assessment data according to one or more of these variables to better understand your outcomes assessment results.

## OA Forms and Submissions

Below is a list of the forms or submissions each workgroup will complete for the discipline, College-wide Outcomes Assessment Team (COAT) and lead dean over the course of the SLO assessment process.

Semester	Turn In	Completed By	Submitted To	Deadline
Semester 1 (Fall)	Draft OA Plan <ul style="list-style-type: none"> <li>• SLO Course Form</li> <li>• Common core course outcome list</li> <li>• Supporting student activities worksheet</li> <li>• Assessment Instrument</li> <li>• Scoring Tool</li> </ul>	Faculty Work Group w/Discipline Input	Faculty Cadre and COAT *	Nov. 30
Semester 2 (Spring)	Final Draft OA Plan (see above)	Workgroup with Lead Dean Sign off	COAT	Feb. 15
	Pilot participating instructor info (Name, CRN, email address) and confirm data spreadsheet format	Workgroup	COAT Coordinator	March 1
	Return completed data spreadsheets	Participating faculty	COAT	End of semester
Semester 3 (Fall)	Revised OA Plan, if necessary, including final version of assessment instrument and scoring tool	Workgroup with pilot group input	COAT	Prof. Week
	Instructor Information for full implementation (Name, CRN, email address for all sections) and confirm full implementation spreadsheet	Workgroup	COAT Coordinator	Oct. 1
	Return completed data spreadsheets	All participating faculty	COAT	End of semester
Semester 4 (Spring) and beginning of following Fall	Request additional data	Workgroup,	COAT Coordinator	March 1
	Campus Observations and Recommendations Form	1 from each participating campus	COAT Coordinator, Deans	May 1
	Summary Recommendations Form with Discipline and Campus level recommendations	Workgroup with discipline and Lead Dean signoff	COAT, Lead Dean	Sept. 15

\* All submissions to College-wide Outcomes Assessment Team (COAT)'s should be electronic using the email address [outcomes@montgomerycollege.edu](mailto:outcomes@montgomerycollege.edu) .

Each of the forms referenced in the above table come with specific instructions explaining how it is to be completed. **The dates listed here are approximate** and will be finalized each semester

by the COAT. The forms and checklists for each semester are included in **Appendix A** along with a completed sample of each of the forms.

### **Who's responsible and for what?**

A successful student learning outcomes assessment project requires the participation of many people throughout the College. While discipline faculty are the heart and soul of the process, others, including the Outcomes Assessment Coordinator(s), Faculty Cadre, the Data Resource Team, administrators, and students, all have important roles to play.

The **Discipline Workgroup** consists of at least one full-time faculty member from each campus at which the course being assessed is offered. This workgroup has the primary responsibility for the planning, piloting, and full-scale implementation of a student learning outcomes assessment project for the discipline. Because this project will involve and impact all faculty in the discipline, a critical expectation of the workgroup is that they will communicate with and solicit feedback from their colleagues during all phases of the project.

Members of the **Discipline Faculty** participate regularly throughout the process by providing feedback and guidance to the Discipline Workgroup as they plan and implement the student learning outcomes assessment project. Furthermore, during the full-scale implementation phase of the project, all discipline faculty teaching the assessed course are expected to participate in the assessment. Additionally, discipline faculty are expected to engage in a discussion of the assessment results, and how they may be used to improve student learning.

**Students** are expected to be aware of the common core student learning outcomes for their courses, including the relevant general education competencies. Students should also understand and be familiar with how they will be evaluated on these outcomes and competencies, including any rubrics used to score the assessments.

**Administrators** from the campus deans to the Vice President of Learning and Academic Effectiveness help convey the importance of outcomes assessment to the College community. Administrators are expected to hold faculty accountable for implementing outcomes assessment as required. In addition, they provide guidance and support for the process, and for any recommendations to improve student learning that may result from the assessments.

The **College-wide Outcomes Assessment Team** is made up of faculty and resource people who are responsible for overseeing and supporting outcomes assessment efforts at Montgomery College. The team is made up of a Coordinator(s), Faculty Cadre, the Data Resource Team and a lead administrator. This team works with College administration and faculty to facilitate and promote outcomes assessment.

The **College-wide Outcomes Assessment Coordinator(s)** serves as the primary spokesperson for outcomes assessment in the academic arena. This person exercises direct oversight and coordination of outcomes assessment for all academic programs, including General Education. In addition, the Coordinator(s) provides advice to faculty workgroups and consults with other units of the College that are moving forward with assessing outcomes in their areas.

The **OA Faculty Cadre** is a small, select group of full-time faculty members representing a wide range of disciplines, as well as every campus. Cadre members are assigned to work one-on-one with a small number of academic disciplines, providing expertise and guidance as needed. They act as mentors to faculty workgroups and their respective disciplines during the timeframe when they are implementing a student learning outcomes assessment project.

The **OA Data Resource Team** analyzes the raw assessment data collected by disciplines participating in the outcomes assessment process, and provides written reports summarizing results. The Data Resource Team generally consists of a small number of specially trained faculty, together with researcher(s) from the Office of Institutional Research and Analysis (OIRA).

## **Outcomes Assessment Tracks**

### General Education Outcomes Assessment

The intent of the General Education outcomes assessment process is to evaluate the effectiveness of the General Education Program in developing the broad-based academic skills and values that exemplify a degree in higher education. These values and skills are embodied in a set of General Education Core Competencies that is still under development. The Maryland Higher Education Commission (MHEC) has specified five initial competency areas, and the College has developed and adopted definitions for each. Additional competencies in areas such as the arts and global literacy are currently being explored under the direction of the College's Academic Assembly. Please see **Appendix B** for the current list of General Education competencies.

The General Education Outcomes Assessment process is course-based, with only the largest, multiple-section general education courses selected to participate. For the purposes of general education outcomes assessment only, such courses are referred to as "***leading general education courses***." These courses have been selected and matched in a matrix with the competencies based on discipline faculty responses to the General Education Competency Survey conducted in Fall 2004. They participate in the assessment process every five years, according to the schedule listed below.

### Academic Area Outcomes Assessment

Disciplines that do not offer a "leading General Education course" (see definition above) will be expected to conduct a course-based SLO assessment project for all courses that offer at least ten sections collegewide in a fall or spring semester. They participate in the assessment process every five years, according to the schedule listed below.

Schedule of Course Participation in Collegewide Outcomes Assessment

Five-Year Assessment Cycle

Alpha OA Planning FA 07 OA Pilot/FI SP/FA 08 Rec SP/FA 09 (Next AAR FA 2010)		Beta OA Planning FA 08 OA Pilot/FI SP/FA 09 Rec SP/FA 10 (Next AAR FA 2011)		Gamma OA Planning FA 09 OA Pilot/FI SP/FA 10 Rec SP/FA 11 (Next AAR FA 2012)		Delta OA Planning FA 10 OA Pilot/FI SP/FA 11 Rec SP/FA 12 (Next AAR FA 2013)		Epsilon OA Planning FA 11 OA Pilot/FI SP/FA 12 Rec SP/FA 13 (Next AAR FA 2014)	
Discipline	Courses	Discipline	Courses	Discipline	Courses	Discipline	Courses	Discipline	Courses
BI	101	FM	103	AR	101	RD	99	DS	107
	107				115		95		103
					107				106
CJ	110	HS	201	BA	101	SP	108	CH	100/100 A
ED	101		202		210		102		102
FL(SN/FR)	SP 101	PE	186	CA	120	HE	100	EC	201
	FR 101	PS	101		106		107		202
PY	102	BI	203	CG	120	AN	101	PL	201
	203		204		101		101		201
<del>SO</del>	<del>101*</del>	AR	205	MG	101	EN	001	AC	202
DS	102		103		210		002		MA
MA	<del>180*</del>	MA	105	ES	100	EL	103	EN	105
	181		110				104		
	182		116				110		101
					EL		101		MA
				RD	102		091		
					101		101		
					103				
						DS	104		
	13		12		17		17		14
<b>Gen Ed Focus</b>		<b>Gen Ed Focus</b>		<b>Gen Ed Focus</b>		<b>Gen Ed Focus</b>		<b>Gen Ed Focus</b>	
Information Literacy		Quantitative Reasoning(tentative)		Technological Competency (tentative)		Critical Thinking(tentative)		Effective Communication/Writing	

\* As part of the initial OA schedule, SO 101 is doing full implementation in FA 07, and MA 180 completed full scale implementation in FA 06.

General Outcomes Assessment

An academic area may choose to initiate an outcomes assessment project, independent of General Education or Academic Area outcomes assessment schedules. This interest may be the result of interest in obtaining information about a particular course; another reason might be writing a grant proposal that requires outcomes assessment. Furthermore, the project does not have to be one that assesses course outcomes. Discipline faculty may want to assess outcomes for other kinds of key academic experiences, e.g. a degree program, certificate, or an internship or service learning program

Whatever assessment project you choose, you can count on the full support from the College-wide OA Team. The COAT can provide the expertise, resources and support for most academic area Outcomes Assessment needs.

---

## **Implementing the Assessment Plan**

---

### **Piloting the Assessment-Who should I include and how should I use the results?**

Every OA plan includes one semester for pilot testing the assessment plan before administering it full scale with all faculty. The purpose of a pilot is to make sure your OA plan works as intended. Think about factors that may potentially cause problems when administering the assessment on a full-scale basis, and use the pilot to provide you with information that will help you minimize those problems. For the pilot to be effective in this way you must obtain feedback afterwards from instructors and students on questions such as:

- Was the timing of the assessment appropriate?
- Were the assessment questions and instructions clear to students?
- Were the scoring instructions clear to faculty who participated in the pilot?
- Did participating faculty understand how to enter the data and do so in a consistent manner?
- Were your methods of communication with participating faculty members timely and effective?

It is important to actively survey participants in the pilot on these issues. Do not simply rely on individuals to volunteer this information.

Because it's just to work out the kinks, you don't need to include every section of the course in a pilot. When choosing sections to participate, we suggest the following guidelines:

- 1) Have both full-time and adjunct faculty from each campus where the course is taught involved in the pilot
- 2) If possible, use instructors who will also teach the course during the full-scale implementation.

- 3) Try to include faculty other than just those on the workgroup in order gain feedback from colleagues who were not as intimately involved in developing the OA plan.

### **What do I need to do to plan for the full-scale implementation?**

Unquestionably, the key to a successful full-scale implementation of an OA plan is clear and timely communication with all participating faculty, including adjuncts who will be teaching the course. These individuals need to be made fully aware of all aspects of the assessment plan *prior to the start of the semester* so that they can plan their course without any mid-semester surprises. In particular, participating faculty must be familiar with the following no later than the beginning of professional week:

- the purpose in assessing learning outcomes
- the learning outcomes that are being assessed
- the common assessment instrument to be administered
- when the assessment is to be administered during the semester
- what students should be told about the assessment and its purpose
- the common rubric or answer key to be used in scoring the assessment
- how to enter scores into the scoring spreadsheet that will be provided
- the fact that assessment results will never be reported in a way that could reflect on the performance of an individual faculty member or student

Some departments have prepared and distributed a memorandum to all faculty who will be participating in the assessment that provides information on the items listed above. An example of such a memorandum is included in **Appendix C**.

---

## **Recommendations- Closing The Loop**

---

### **How do we “close the loop” to the outcomes assessment process?**

During the semester following the full-scale assessment, data will be analyzed by the Outcomes Assessment Data Resource Team and a report will be generated that will go the discipline and the Lead Dean for that discipline. Once that report is received it becomes the responsibility of the discipline to review and discuss it, and to make observations and recommendations about each of the following aspects of the outcomes assessment experience:

- the learning outcomes that were assessed
- the assessment instrument
- the assessment rubric, if one was used
- the assessment process
- the assessment results

Observations should identify those things that worked well and those things that did not, and in the case of the latter, recommendations should be provided to help address those issues in the future. This is particularly important with regard to the assessment results, since the overriding purpose of outcomes assessment is to document student learning and, where necessary, to suggest and implement changes that might improve it.

This observations and recommendations phase of outcomes assessment will be conducted in two stages. First, throughout semester 4 (spring), observations and recommendations are made at the campus level. Once campuses recommendations and observations are made, the discipline meets to discuss the data, observations and recommendations. A discipline summary of recommendations is submitted to COAT by the end of the professional week of the following fall semester. The results of these discussions are to be recorded on the Campus and Discipline Observation and Recommendations Forms. Instructions for these forms, along with a completed sample, are provided in **Appendix A**.

#### **Things to Remember about MC’s Outcomes Assessment Process**

1. Generally, the process is course based and the assessment course embedded.
2. Almost every discipline is expected to participate either under the aegis of General Education or Academic Area Outcomes Assessment.
3. From start to finish, the process generally requires 2 years to complete.

4. Disciplines are expected to assess 3 common core learning outcomes as part of a mandated assessment project.
5. All discipline faculty must agree on the definitions of the core learning outcomes.
6. During the semester of full-scale assessment, all instructors must use a common assessment instrument and score these using a common rubric.
7. Faculty must use the results of outcomes assessment to improve courses and programs where needed.
8. All assessment instruments will be piloted with feedback used to revise the plan and materials.
9. Recommendations and observations are both campus based and college-wide.

## Part Three: Guidance for Developing an OA Plan

---

---

### Part Three of this handbook

1. Gives advice for developing SLOs;
2. Explains selecting an assessment method;
3. Gives advice for developing an assessment instrument;
4. Gives suggestions for developing a scoring tool.

This portion of the Outcomes Assessment Handbook is a “how-to” manual of sorts, taking you through the steps of creating an outcomes assessment plan. Each section is designed to give you some basic guidelines for each aspect of an OA plan. Although the suggestions below represent best practices in outcomes assessment as well as the experiences of faculty workgroups from previous years, we know that some disciplines have specific needs which may conflict with these recommendations, so use the handbook as only a beginning point.

### Faculty consensus

In the sections that follow, we provide tips and guidance to help you get the most out of your assessment effort. But no matter how you go about the process it *is absolutely crucial that you take the time to get consensus and buy-in from your colleagues at each stage of the process*. Remember, all faculty members teaching the course will be required to participate in the full-scale assessment in year 2, so getting them on board now will make the process easier later. The outcomes assessment process is only as meaningful as faculty and administrators choose to make it – if you can encourage your colleagues to contribute to the creation of good outcomes now, they may be more responsive to assessing those outcomes later.

---

---

## Student Learning Outcomes

---

---

Students who know what is expected of them in terms of their learning have a framework for learning and are more successful. Faculty who have a clear idea of what they want their students to learn are able to align their instructional activities to these outcomes. In these two ways, clearly articulated outcomes are essential to student learning. Outcomes Assessment allows us to systematically examine the alignment between student learning, instructional or institutional expectations and instructional activities. To this end, we begin planning for outcomes assessment with student learning outcomes.

### Where do we start?

Every course should have a set of college-wide, common, core expectations for student learning. These expectations are the most important things a student who passes the course should take away from any section of the course. While individual instructors may add to this course, there

should be a shared understanding of the core skills and knowledge upon which the course is based. It is these expectations which should be reflected on each course syllabus and which should be used to determine SLOs for the OA process.

**Note:** If the discipline doesn't have a set of articulated SLOs for the course, the development of college-wide common core student learning outcomes maybe one of the first outcomes of this process. The outcomes should become a standard part of the syllabus.

## What makes a good learning outcome?

Generally speaking, good learning outcomes are

- Learner centered
- Key to the course's mission
- Meaningful for faculty and students
- Representative of a range of thinking skills
- Measurable

First, and most importantly, good learning outcomes focus on **what students can do** instead of the effort we put into teaching them. Second, college-wide outcomes must be **essential to the course's mission**, something that everyone teaching the course agrees is important. Avoid outcomes that are idiosyncratic or tied to a particular instructor's approach to a course. Third, design outcomes that are **meaningful for faculty and students**. If you cannot explain *why* a certain outcome is important, it probably isn't very meaningful. Finally, outcomes often reflect a **range of thinking skills**, from low level identification to higher level application of knowledge or skills.

Good outcomes **are measurable** in some way; they communicate what student learning will be evaluated in the course. Often courses will have two levels of outcomes; some broader based outcomes which reflect higher order thinking skills and broad topics, and some more narrow, lower level thinking skills outcomes which are essential to reaching the broader outcomes.

If the course doesn't have expectations for student learning formulated as SLOs, the workgroup, with discipline support, will need to write SLOs to be used for this process. These SLOs should become a standard part of the course syllabus.

SLOs should

- be written in terms of what the student will be able to do at the end of the course
- use active verbs
- reflect measurable standards or reflect basic the knowledge and skills that the student will be held accountable for
- reflect a combination of higher order thinking skills and supporting or enabling skills
-

<b>Discipline</b>	<b>Example SLO</b>
<b>AR</b>	Students will be able to distinguish form and content in 2-dimensional and 3-dimensional works of art.
<b>BI</b>	Students will be able to explain the key elements in the theory of organic evolution, cite major evidence the support of Darwin's theory of natural selection, and explain the role of natural selection in the development of chemical resistance in microbes, viruses, plants and animals.
<b>HE</b>	Students will be able to analyze a nutrition food label and explain various components of that food label their relation to healthy food choices.
<b>EN</b>	Students will be able to apply principles of logical argument and persuasion in their writing.
<b>MA</b>	Students will be able to demonstrate an understanding of the Central Limit Theorem and sampling distributions and use these to estimate a population parameter.

When defining SLOs to assess, it is tempting to take the easy route and think only in terms of learning outcomes that represent lower order skills because they will be simpler to evaluate. Instead concentrate on the skills and knowledge which are essential for a student to be considered competent at the end of the semester. While some lower order types of learning outcomes may be essential to reaching higher level outcomes, make sure that you define a range of outcomes which reflect higher order, complex application tasks in addition to any essential supporting learning outcomes which may reflect lower order thinking skills.

### **Lower order vs. higher order thinking skills**

While basic recall of facts is important to any course, your assessment results will be more meaningful if you have chosen a more complex skill. Moreover, it will likely reflect what is truly important in your course. Often facts are important because we want students to be able to do something with that information.

SLOs which reflect higher order thinking skills, use action verbs that are observable and measurable, as well as ones that reflect higher order skills. Examples of such verbs are solve, design, write, compare, apply, decide, draw, persuade, investigate, and evaluate.

Refer to the following possible outcomes for an information technology course:

- Students will be able to correctly summarize the key differences between open and closed source software development models.
- Students will be able to evaluate the strengths and weaknesses of open and closed source software development models.

While the first outcome is certainly easier to achieve, the second one better represents what students would have to do with the information in the real world. You will get more useful information about student learning with the second SLO.

## How do we choose which SLOs to assess?

To select SLOs to assess for this process, consider the following questions:

1. What are the 3 or 4 most crucial outcomes for the course?
2. Are there topic areas or where students struggle on a regular basis?
3. Do you have questions about a particular area of student achievement?
4. Are there outcomes which reflect skills or knowledge students will need in future courses or careers?
5. Are there outcomes which reflect Gen Ed competencies?

Identifying outcomes which reflect any of these characteristics would be a place to start. Ultimately the outcomes you select

- Should reflect higher order thinking skills (**application of knowledge or skills**)
- Be agreed upon as essential and core to the course (addressed in **every section** of the course)
- **Be meaningful** to the discipline

## How do we include a Gen Ed competency in our SLOs?

For courses which are part of the Gen Ed Outcomes Assessment process, one or two of your outcomes must reflect the assigned Gen Ed competency. Your first step will be taking the Gen Ed competency and choosing an outcome that is aligned to it, but is also more specific to how students are expected to use that skill in your course.

There are many possible outcomes for each competency; you will select just one for each Gen Ed competency you are scheduled to assess. The Gen Ed competencies are extremely broad, expressing very general skills students are expected to have after taking Gen Ed courses. The outcome you use will be specific to the course.

Each of the following EN 102 SLOs reflect the Critical Thinking competency

- Students will be able to critically evaluate a selected argument using the formal elements of argument.
- Students will be able to find and identify any flaws in logic and reasoning that weaken a given argument text.
- Students will be able to analyze and evaluate an author's use of rhetorical techniques and their effects on readers.

To see how different courses interpret the same competency, consider the three different outcomes that were written by the faculty workgroups in English, health, and speech for the assessment of the information literacy competency.

**Information literacy competency:** Identifying, locating, and making effective use of information from various electronic and print sources.

- EN 102: Students will integrate information from different types of secondary sources to support a thesis on a research topic.
- HE 100: Students will analyze, in writing, information from various information sources to assess personal risk factors and examine health issues.
- SP 108: Students will find, identify and apply research materials to their speech presentations.

As you can see, each group designed an outcome that reflects what that competency means in their particular course.

**Note:** Courses that are not part of the Gen Ed OA process, but are recognized as Gen Ed, or naturally support any of the Gen Ed competencies, are encouraged to assess SLOs that reflect Gen Ed competencies as part of the Academic Area OA.

### **Five Key Things to Remember About College-wide Common Core Student Learning Outcomes for a Course**

1. Select outcomes to assess because they're meaningful, not because they're easy to measure.
2. Make sure your outcomes are expressed in terms of how students are impacted by your course.
3. Make sure that your common core outcomes reflect a faculty consensus in your discipline and not just the views of a few individuals.
4. Where possible, have your outcomes reflect higher order thinking skills
5. Make sure that all faculty and students involved with the course are familiar with the outcomes.

---

---

## Supporting Student Activities

---

To get the most meaningful results, students should be given opportunities to practice achieving an outcome before it is assessed. If faculty believe that a stated outcome is important, then logically they should have supporting activities in their course that help students achieve the outcome. For example, if the science faculty believes that writing effectively is an important skill in their courses, it should include writing assignments.

This part of the OA plan is a catalog of the preparatory, or supporting, student activities that can take place before the formal assessment of the outcome. As the American Association for Higher Education points out in number four of its “Nine Principles of Good Practice for Assessing Student Learning,”

Assessment requires attention to outcomes but also and equally to the experiences that lead to those outcomes. ... Assessment can help us understand which students learn best under what conditions; with such knowledge comes the capacity to improve the whole of their learning.

These supporting activities allow students opportunities to practice the outcome and receive feedback on their performance. Supporting activities will likely vary from instructor to instructor, and that’s as it should be. What is essential is that every instructor is able to point to academic experiences that adequately prepare his or her students to successfully achieve the desired outcome.

### **How do we align SLOs and supporting student activities?**

For this part of the plan, you should collect activities which faculty teaching the course believe help students achieve the SLO. If this list is limited, you should have a discipline discussion to brainstorm ways in which the SLO could be supported instructionally.

The following are examples of activities that might be used to support an information literacy outcome:

“Students will critically evaluate websites for possible use in an academic research paper.”

- Students take MC library’s tutorial “Evaluating Information on the World Wide Web” and submit their quiz results to the instructor.
- In a computer classroom the instructor demonstrates the process of finding websites for a given research topic, then has students work in pairs to find one credible site. After independent work time, instructor pulls up selected sites from the student pairs, asking them to justify their choices. Instructor provides feedback on the chosen sites.

- Instructor opens a discussion with the class about their previous experiences using the Internet for research, guiding the class to general principles about what makes a good site for academic research.

\*For more examples, see the sample Supporting Student Activities Worksheet in **Appendix A**.

This is not an exhaustive list; it is merely a list of possible instructional activities faculty might realistically use as part of regular instruction to facilitate student achievement of the SLO.

---

---

## **Assessment Methods and Instruments**

---

---

The next part of the OA plan is choosing an assessment method and writing an assessment instrument. The assessment method is the general type of tool you will use to assess the SLO. The instrument is the actual assignment, quiz, exam, or project you will use to complete the assessment. First, you should determine what method you want to use, and then, you will develop the actual tool.

### **How do we choose an assessment method and develop an assessment instrument?**

Common assessment methods include test questions (multiple choice, short answer, essay), formal writing assignments (essays, research papers, reaction/review papers), performances, and portfolios. You will need to consider a variety of factors as you choose your method, including alignment with the outcome, ability to get faculty consensus, and ease of scoring. It is difficult to separate the method from the instrument; however, it is useful to step back at this point and consider the method separately from the actual assignment. Considering the general approach to the assessment will allow you to determine the most useful method and develop a useful assessment instrument.

#### Alignment

Probably the most important consideration when choosing or developing an assessment method is whether it is aligned with the SLO. In other words, is what you're asking the students to do in your assessment going to provide you with solid evidence about whether or not they have achieved the desired outcome? If your outcome deals with a student's ability to make a persuasive speech, a research paper is not a good instrument to measure this outcome. If you are assessing a quantitative reasoning outcome which speaks to students' ability to interpret some particular statistical information, simply asking them to calculate something correctly will not tell you whether they've achieved that outcome.

Aligning outcomes with methods may seem like an obvious recommendation, but it's not uncommon to see a disconnect between the outcome and the assessment instrument when workgroups are in the early stages of writing their OA plans. In some instances, workgroups end

up revising their outcomes after working on their assessment instrument. That's okay, as long as everything aligns before you pilot.

### Ease of scoring

We all know that writing good multiple choice questions takes a lot of time, but scoring them is fast. Writing a good essay question is less time-consuming than grading a stack of student essays. With everything we do, we need to consider how much time it will take; you should consider the time involved in scoring the instrument and reporting the data. When choosing an assessment method you must weigh time against meaningful results. It may be challenging to find the balance, but the efforts of going through an OA plan won't be worth much if you cannot use the results to make decisions about the strengths and weaknesses of your course. The next main section will discuss scoring in greater depth.

“Pros and Cons of Common Assessment Instruments” in the **Appendix C** goes into much greater detail about the main types of assessment instruments and the benefits and drawbacks of each. It also provides tips and advice for how to use each one in a multi-campus, multi-section outcomes assessment process.

### Assess two(or more) SLOs with one method

One way to balance meaningful results with time spent scoring is to use one assessment instrument to measure more than one outcome. This technique has been used successfully by many of the workgroups participating in the General Education OA process. This approach works especially well if you have both skill- and knowledge-based outcomes to assess.

For example, the workgroup for an environmental biology course tasked with assessing the Gen Ed Competency, “Writing Effectively,” and the following two course-specific **outcomes**

- Students will be able to critically analyze articles on environmental issues.
- Students will be able to describe major ecological principles and relate these principles to the evaluation of current environmental problems

might choose as an **assessment instrument** a writing assignment that combines the first two outcomes. Perhaps they would design a paper assignment that asks students to analyze a given article about an environmental problem, applying major ecological principles to the problem. The paper would then be scored on three levels: how well the paper was written, how well the student analyzed the given article, and how well the student was able to relate ecological principles to the environmental problem addressed in the article. In many ways, this approach is more authentic to student learning because it asks students to integrate knowledge and skills.

Assessing each outcome alone certainly works, but combining them gives us a better picture of how students perform in a more “real world” setting. When scoring an assessment which assesses two or more outcomes, you will assign separate scores for each outcome as well as having an overall score.

### Writing the Assessment Instrument

Once you’ve chosen your assessment method (exam, paper, etc.) it’s time to write the actual instrument that will be handed out to students. We all have experience with writing assessment instruments; it’s one of the major tasks we have as teachers. Creating an instrument for use in multiple sections does require an extra level of scrutiny. Again, you need to make absolutely certain that the assessment instrument you use measures how well the students meet the expected outcomes, rather than something else. Additionally, make sure the instructions to the student clearly explain the expectations for the assignment.

Here are the three easiest ways to ensure a quality instrument for outcomes assessment:

- Make sure the assignment or exam questions are directly aligned with the outcomes.
- Write directions that are clear to people who have never seen the instrument before and that clearly articulate the expectations for completing the assignment.
- Pilot the instrument and ask for feedback from the students and faculty who used the instrument.

For tips about writing good assessment instruments, please see “Strategies for Developing Assessment Instruments” in the Appendix. Another approach is to give your instrument to a few colleagues in different departments. They will have fresh eyes and can look at your instrument without the tunnel vision that sometimes comes when you know your content so well.

### **Key things to remember about developing an assessment method and instrument**

1. Consider the method separately from the actual instrument to find the best approach.
2. Think about the ease of scoring and alignment with the learning outcomes to help determine the best assessment approach.
3. Consider assessing two or more outcomes with one assessment method/instrument.
4. Make sure the instructions for the assessment instrument clearly lay out the expectations for the student and faculty who will use the assessment instrument.

---

---

## Scoring Tools

---

“Consistency, consistency, consistency” is the mantra when multiple individuals are being asked to score a common assessment, as is the case in the College’s SLO assessment process. If the assessment instrument consists of a set of objective questions each with only one right or wrong response, e.g multiple choice, then a simple answer key distributed to all faculty who will be administering the exam will do the trick. If, on the other hand, the instrument involves open-ended types of questions or assignments, such as essays, research papers or student performances, which by nature require some subjectivity in their scoring, there are some things you can do to structure a scoring scheme that will maximize consistency among faculty administering the assessment.

### How do we score the assessment?

#### Identify the dimensions of the outcome

The first step in setting up scoring procedures for non-objective assessments is to identify the dimensions for each outcome; i.e., the key broad aspects or areas of student performance on which the assessment will be scored. Here are two examples from previous cycles of the General Education outcomes assessment process that show how outcomes’ dimensions can be defined. In these examples, the gen ed competency is bolded, and the dimensions used by the workgroups follow.

- **Analyzing and interpreting data:**
  - Identify and use data
  - analyze and interpret data
  - draw conclusions based on analysis and interpretation of data
  
- **Communicating effectively in written language:**
  - Mechanics
  - Development
  - Style

#### Short answer assessments

In the case of assessments made up of open-ended short answer questions, it is critical that a clear answer key of acceptable right answers for each question be developed. During the full implementation of the assessment, every instructor must then score their students based on this common answer key, though they are free to grade additional answers as correct in determining their own course grades.

### Longer, open-ended assessment instruments

For scoring consistency with longer open-ended assignments such as essays, research papers, or performances, a rubric should be developed. A rubric is a criterion based scoring tool that specifies levels of achievement (e.g. exemplary, satisfactory, unsatisfactory) for each dimension of the outcome. As part of the rubric, criteria are provided that describe what constitutes the different levels of achievement. For example, the rubric that is being used to score effective writing with dimensions of mechanics, style, and development would provide the criteria that describe what constitutes exemplary, satisfactory, and unsatisfactory student work in the areas of for writing mechanics, for writing style, and for writing development.

Although only three levels of achievement are specified in the above example, rubrics can have any number of levels that is manageable and makes sense for the given assessment instrument. However, from three and five levels generally make the most sense.

### **More about rubrics**

There are two major types of rubrics: holistic and dimensional, also known as a primary trait rubric. Both detail the particular qualities that separate excellent from poor student work along a spectrum, but the first groups the dimensions together, while the second keeps them separate.

The holistic rubric looks at the instrument as a whole; students receive one overall score based on a pre-determined scheme used by everyone. The dimensional rubric yields sub-scores for each dimension, as well as a cumulative score which is the sum, either weighted or un-weighted, of the dimensional scores.

Each type of rubric has its strengths and weaknesses. Holistic rubrics allow you to look at a student's overall performance, and often it corresponds better to the grade that pops into our heads immediately after we finish looking at the student work. The dimensional rubric provides more information about what's working and what's not. For example, perhaps students are doing a good job with learning the mechanics or writing, but not so well with learning writing development. A dimensional rubric will provide information with this level of detail, whereas a holistic rubric will not. Examples of each are provided in **Appendix C**

Regardless of the type of rubric, it is important that it be shared with students well before the assessment is administered. It is unreasonable to expect students to perform well on an assessment if they don't have a clear understanding of the standards being used to evaluate it.

### Assessments based on objective questions

Even if you are using a set of objective questions you may find it helpful to group subsets of these questions together that reflect an assessment of a specific dimension of your outcome. Doing so might be particularly useful in situations where the assessment includes a large number of objective questions. Without grouping the questions to reflect key dimensions of the outcome being assessed, faculty participating in the assessment will have to enter a score for each question in the assessment on a scoring spreadsheet, potentially creating a significant data entry

burden. By grouping, say 5 questions within a dimension, faculty could enter one number for the dimension, i.e., the number correct out of the 5 questions, instead of entering a separate student score for each of the 5 questions. There is, of course, a tradeoff in doing this, as the discipline will get back less information from the data analysis, and so this is a consideration that needs to be carefully thought out.

### **5 Key Things to remember about Scoring Tools**

1. It is imperative that the discipline talk about the assessment instrument and determine what kind of student performance qualifies as successful.
2. When using objective measures (e.g. multiple choice tests), consider grouping questions which reflect a specific aspect of the outcome.
3. When using rubrics, be sure that students see the rubric which will be used to evaluate the assignment before they complete it.
4. When using rubrics, norming is really important.
5. Be sure to get feedback after the pilot on how well the scoring tool worked with the assignment and whether faculty feel that it reflects successful performance effectively.

# **Appendix A**

## **Sample Forms, Instructions and Checklists**

**Blank forms are available from**  
**<http://www.montgomerycollege.edu/outcomes/>**



# OUTCOMES ASSESSMENT

## Instructions for the Student Learning Outcomes – Courses Form

Every course should have a clearly articulated set of college-wide common core student learning outcomes which students are expected to achieve in all sections of the course. In this phase of the outcomes assessment process, you will identify three college-wide common core student learning outcomes to assess and draft a plan for how to assess them. If such a set of course learning outcomes does not currently exist, then the workgroup, as representatives of the discipline, will have to develop three acceptable SLOs to be assessed. *If one exists, please attach the complete list of college-wide common core learning outcomes for this course when submitting this form.*

The instructions for completing the SLO form is based on whether the course is being assessed as part of the General Education program assessment or if it is being assessed as part of Academic Area assessment or other reasons. Courses selected to participate in Gen Ed program assessment were chosen based on the number of sections students served. Gen Ed OA courses will assess one Gen Ed competency and two course specific SLOs or two Gen Ed competencies and one course specific SLO. All other OA participants will assess at least three course specific SLOs.

*The workgroup should submit one form for each course being assessed. Return the form(s) electronically to the College-wide Outcomes Assessment Coordinator ([outcomes@montgomerycollege.edu](mailto:outcomes@montgomerycollege.edu)), with copies to the Lead Dean and COAT faculty cadre. After consultation with your discipline, a draft of this form must be submitted by **November 1** to [outcomes@montgomerycollege.edu](mailto:outcomes@montgomerycollege.edu) and your Lead Dean. This first phase of your assessment plan will be reviewed and feedback provided where necessary.*

---

### **GENERAL EDUCATION PROGRAM ASSESSMENT**

**For courses which have been identified to participate in the Gen Ed program assessment, please complete the following:**

- Entire box (SLO, Assessment Method and Assessment Timeline) for the one or two Gen Ed competencies that your course will assess in this cycle. The SLOs for this section should reflect how the Gen Ed competency is reflected in the course.
- Entire box (SLO, Assessment Method and Assessment Timeline) for one or two course specific outcomes, depending on how many Gen Ed competencies you are assessing. Selected SLO's should reflect college-wide, common core student learning outcomes.

**Note:** Between General Education competencies and course-specific outcomes, you should complete a total of at least 3 outcomes boxes. However, you may want to consider assessing additional outcomes if you are able to combine them efficiently with other assessments.

## **OUTCOMES ASSESSMENT FOR ALL OTHER DISCIPLINES**

**For disciplines which are participating in Academic Area Outcomes Assessment or other purposes, please complete the following:**

- Entire box (SLO, Assessment Method and Assessment Timeline) for 3 course specific student learning outcomes. These should be college-wide, common core student learning outcomes that all instructors are expected to address when teaching this course.

**Note:** If you are assessing a General Education course which hasn't been identified to participate in Gen ED OA, we strongly recommend that you consider including General Education competencies in your outcomes assessment plan. You may also want to consider assessing additional outcomes if you are able to combine them efficiently with other assessments.

---

### **Explanation of each line in the outcomes box**

#### **Student Learning Outcome (SLO)**

**What is a student learning outcome?** A student learning outcome will address what a student is expected to learn as a result of participating in this course. It focuses on the most important knowledge gained, skills and abilities acquired or demonstrated, and attitudes or values changed. In other words, what are the most crucial things students should know or be able to do at the end of the semester? If assessing a General Education competency, start with the competency and develop the associated outcome based on how your course interprets and carries out that competency. Student Learning Outcomes should be phrased in terms of what the student is expected to be able to do as a result of completing the course. Selected SLOs should reflect discipline agreement on what the common goals for the course are. They should be relatively broad and should reflect the most important aspects of the course.

<b>Discipline</b>	<b>Example SLO</b>
AR	Students will be able to distinguish form and content in 2-dimensional and 3-dimensional works of art.
BI	Students will be able to explain the key elements in the theory of organic evolution, cite major evidence that supports Darwin's theory of natural selection, and explain the role of natural selection in the development of chemical resistance in microbes, viruses, plants and animals.
HE	Students will be able to analyze a nutrition food label and explain various components of that food label and relation to healthy food choices.
EN	Students will be able to apply principles of logical argument and persuasion in their writing.
MA	Students will be able to demonstrate an understanding of the Central Limit Theorem and sampling distribution and be able to use these to estimate a population parameter.

#### **Assessment Method**

**What type of assessment instrument will you use to assess the outcome?** Examples are test questions (essay, short answer, multiple choice), formal writing assignments (essays, research papers), presentations, portfolios, and surveys. You don't need to provide the specific exam questions or assignment at this point, just the general instrument type. The assessment will be one that every section of the course will use to assess the associated outcome(s). Ideally, the assessment should reflect an activity which is already used as a standard part of most courses and which will effectively evaluate student achievement of a particular outcome. Also, to reduce the intrusion of AO, you may want to consider using an assessment method which would allow you to assess multiple outcomes.

#### **Assessment Timing**

**At what point in the semester will you administer the assessment?** The most common choices are midpoint and end of semester. Unless you're using a pretest-posttest approach, you want to assess late enough in the semester for students to have adequate practice with the outcome.



## OUTCOMES ASSESSMENT STUDENT LEARNING OUTCOMES COURSES FORM

Course Number and Title: EN 102  
Lead Dean:

Date form completed:  
Workgroup contact person:

See the SLO Course Form instruction sheet for details about form completion. In all cases, three competency/outcome boxes must be completed. (For more than three, additional boxes may be added by copying and pasting a blank box.) Return the form electronically, along with a complete list of college-wide common core outcomes for the course, to the Outcomes Assessment mailbox at ([outcomes@montgomerycollege.edu](mailto:outcomes@montgomerycollege.edu)) by Nov. 1, with copies to the Lead Dean.  
Note: General Education Competency Areas and competencies are listed on page 2 of this form.

Check the appropriate box: <input checked="" type="checkbox"/> <b>Gen Ed Competency</b> Competency Area: ___ Information Literacy ___ Competency: ___ will be able to identify, locate, and make effective use of information from various electronic and print sources <input type="checkbox"/> Course Specific Outcome	
Student Learning Outcome	Students will be able to integrate information from different types of secondary sources to support a thesis on a research topic .
Assessment Method	Multi-page essay (either 4-5 page or 8-10 page)
Timing of Assessment	Mid to end of semester

Check the appropriate box: <input checked="" type="checkbox"/> <b>Gen Ed Competency</b> Competency Area: ___ <i>Written and Oral Communication</i> ___ Competency: ___ Students will be able to communicate effectively in written language <input type="checkbox"/> Course Specific Outcome	
Student Learning Outcome	Students will be able to write a multi-page essay which presents and supports a claim and demonstrates college-level writing skill.
Assessment Method	Multi-page essay (either 4-5 page or 8-10 page)

Timing of Assessment	Mid to end of semester
----------------------	------------------------

Check the appropriate box: <input type="checkbox"/> Gen Ed Competency    Competency Area: _____ Competency: _____	
<b>X Course Specific Outcome</b>	
Student Learning Outcome	Students will be able to apply principles of logical argument and persuasion in their writing
Assessment Method	Multi-page essay (either 4-5 page or 8-10 page)
Timing of Assessment	Mid to end of semester

### General Education Competency Areas and Competencies

#### ***Competency Area: Written and Oral Communication***

- O1: Students will be able to communicate effectively in verbal language
- O2: Students will be able to communicate effectively in written language
- O3: Students will be able to use a variety of modern information resources and supporting technologies
- O4: Students will be able to differentiate content from style of presentation
- O5: Students will be able to adapt content and style to the purpose of communication

#### ***Competency Area: Scientific and Quantitative Reasoning***

- O6: Students will be able to locate, collect, and organize data
- O7: Students will be able to analyze and interpret data
- O8: Students will be able to use mathematics to make decisions
- O9: Students will be able to use the scientific method of inquiry to make decisions

#### ***Competency Area: Critical Analysis and Reasoning***

- O10: Students will be able to use inference, analysis, and interpretation to arrive at reasoned and supportable conclusions.

#### ***Competency Area: Technological Competency***

- O11: Students will be able to use computer technology and software to produce documentation for various academic and professional settings.
- O12: Students will be able to use quantitative data and functional graphical presentations for various academic and professional setting

#### ***Competency Area: Information Literacy***

- O13: Students will be able to identify, locate, and make effective use of information from various electronic and print sources



Check the appropriate box: <input type="checkbox"/> Gen Ed Competency    Competency Area: _____ Competency: _____	
<b>X Course Specific Outcome</b>	
Student Learning Outcome	Students will be able to construct and interpret the meaning of a confidence interval for a population parameter. They will also demonstrate an understanding of the relationship of the sample size, confidence level, and the width of the interval
Assessment Method	Objective and short answer questions
Timing of Assessment	Final exam at the end of the semester

## General Education Competency Areas and Competencies

### ***Competency Area: Written and Oral Communication***

- O1: Students will be able to communicate effectively in verbal language
- O2: Students will be able to communicate effectively in written language
- O3: Students will be able to use a variety of modern information resources and supporting technologies
- O4: Students will be able to differentiate content from style of presentation
- O5: Students will be able to adapt content and style to the purpose of communication

### ***Competency Area: Scientific and Quantitative Reasoning***

- O6: Students will be able to locate, collect, and organize data
- O7: Students will be able to analyze and interpret data
- O8: Students will be able to use mathematics to make decisions
- O9: Students will be able to use the scientific method of inquiry to make decisions

### ***Competency Area: Critical Analysis and Reasoning***

- O10: Students will be able to use inference, analysis, and interpretation to arrive at reasoned and supportable conclusions.

### ***Competency Area: Technological Competency***

- O11: Students will be able to use computer technology and software to produce documentation for various academic and professional settings.
- O12: Students will be able to use quantitative data and functional graphical presentations for various academic and professional setting

### ***Competency Area: Information Literacy***

- O13: Students will be able to identify, locate, and make effective use of information from various electronic and print sources



# OUTCOMES ASSESSMENT

## Supporting Student Activities Worksheet

Course: **EN 102**

Workgroup Contact:

One of the key benefits of outcomes assessment is that it facilitates the alignment between student performance and instruction by providing data about student performance on discrete outcomes in the course. On this worksheet, you will look at the types of activities which might be used to give students opportunities to practice with and reach the stated outcomes.

---

*Instructions: List each SLO being assessed. Then make a list of instructional activities which might be used to facilitate student achievement of the outcome. If activities support multiple outcomes, they can be listed for each appropriate outcome. Please survey instructors who teach the course to get a comprehensive list of potential instructional activities. Submit this worksheet as part of your OA Plan.*

**Student Learning Outcome #1:** Students will be able to integrate information from different types of secondary sources to support a thesis on a research topic.

Supporting Student Activities:

- (in class) practice distinguishing between source material and students' commentary on the reference material
- Students will read articles and incorporate quotes, paraphrases, and summaries from these articles into an original paragraph
- Students will write short essays that identify and analyze argument in various forms
- Students will produce works cited or bibliographic information in appropriate formal citation format
- Quizzes on quote and paraphrase citation format
- Students will complete source evaluation assignments to identify different kinds of sources and determine what is needed to support a thesis.
- Students will create working bibliography of sources for an identified research topic.
- Identify and explore an area of interest
- Summarize source material
- Complete note cards/research journal/ other background notes on source material
- Complete the MC library tutorial on evaluating internet sources
- Conduct background research on source authors
- Students will read articles and incorporate quotes, paraphrases, and summaries from these articles into an original paragraph, documenting each appropriately.
- Students will produce works cited or bibliographic information in appropriate formal citation format.

**Student Learning Outcome #2:** Students will be able to write a multi-page essay which presents and supports a claim and demonstrates college-level writing skill.

Supporting Student Activities:

- Students complete planning activities for writing a paper.
- Student practice identifying and narrowing topics for a paper.
- Students practice developing claim statements.
- Students use peer review.

- Students participate in class discussion to develop ideas for a paper.
- Student analyze and evaluate sample essays which model college-level writing.
- Students complete two 4-5 page or one 8-10 page researched argument paper, incorporating different source material, appropriately documenting the references.

**Student Learning Outcome #3:** Students will be able to apply principles of logical argument and persuasion in their writing.

**Supporting Student Activities:**

- Students form and articulate an opinion about a research topic based on principles of inquiry.
- Students identify an appropriate, specific audience.
- Students research and write about a variety of perspectives on a single topic.
- Students adapt tone and style to address audience in a variety of writing assignments.
- Students employ clear pattern(s) of argument (deduction, induction, toulmin logic, etc) in writing assignments.
- Students identify fallacies in source material and avoid using them in their own writing.
- Student analyze and evaluate model essays which use argument and persuasion.
- Students complete quiz on logical fallacies.
- Students complete other activities to identify logical fallacies and different types of appeals.



# OUTCOMES ASSESSMENT

## Supporting Student Activities Worksheet

Course: MA 116

Workgroup Contact:

One of the key benefits of outcomes assessment is that it facilitates the alignment between student performance and instruction by providing data about student performance on discrete outcomes in the course. On this worksheet, you will look at the types of activities which might be used to give students opportunities to practice with and reach the stated outcomes.

---

*Instructions:* List each SLO being assessed. Then make a list of instructional activities which might be used to facilitate student achievement of the outcome. If activities support multiple outcomes, they can be listed for each appropriate outcome. Please survey instructors who teach the course to get a comprehensive list of potential instructional activities. Submit this worksheet as part of your OA Plan.

**Student Learning Outcome #1: Students will be able to apply appropriate statistical techniques and present their results in a report written in non-technical language as if writing a newspaper article for the general public**

Supporting Student Activities: Assignments throughout the semester that require students to apply appropriate statistical tests to applied, real world problems.

Individual and group projects that require students to interpret and present the results of a statistical analysis in paragraph form in non-technical language. Students, both individually and in groups, are given statistical results from a real-world problem and asked to write a paragraph that interprets and draws conclusions from these results.

**Student Learning Outcome #2: Students will be able to demonstrate an understanding of the Central Limit Theorem and sampling distributions and use this to estimate a population parameter.**

Supporting Student Activities:

Classroom activities and textbook based assignments that require students to determine the sampling distribution of estimators.

Assignments that emphasize how the sample size effects the sampling distribution and the accuracy of the resulting population estimates

**Student Learning Outcome #3: Students will be able to construct and interpret the meaning of a confidence interval for a population parameter. They will also demonstrate an understanding of the relationship of the sample size, confidence level, and the width of the interval.**

Supporting Student Activities:

Classroom and textbook based activities and assignments that require students to construct confidence intervals for a variety of population parameters.

Classroom and textbook based activities and assignments that demonstrate how sample size, level of confidence, and the width of the confidence interval are related.

Assignments that require students to either interpret the meaning of a confidence interval verbally and in writing.

# **Recommendations and Observations Forms and Instructions**

**Blank forms can be found at**  
**<http://www.montgomerycollege.edu/outcomes/>**



# OUTCOMES ASSESSMENT

## Instructions for completing OA Campus SLO Observations & Recommendations Form (Part I Recommendations)

Academic Outcomes Assessment is a systematic process which helps align goals, activities and student learning. The results of this process should be used to enhance student learning and inform college-wide planning. Outcomes Assessment generally follows a cycle of planning, implementation and analysis.

You are currently in the final, analysis phase, the purpose of which is to use the collected information to celebrate our successes and to reflect on and address our concerns. As such, it is your task to examine, discuss and analyze your Outcomes Assessment project and the resulting data. In this phase, you should have both campus-based and college-wide discussions to reach conclusions and recommendations about the results of your Outcomes Assessment project. To that end, your discipline is expected to reflect on the five key aspects of the assessment implemented for the indicated course. For each, we ask that you note observations or conclusions about the success of that aspect of the process, and then propose recommendations, where appropriate, that follow from these observations. You are encouraged to discuss your successes and the factors which are responsible for your success in addition to any results which you consider less successful.

Initially, each department should report campus-based discussions on the attached form Campus SLO Observations and Recommendations Form. These campus-based observations and recommendations should be used as a basis for College-wide discussions. College-wide observations and recommendations will be reported on summary form after campus-based discussions have concluded. Individual campuses may have campus-based recommendations and observations specific to the campus in addition to College-wide recommendations.

---

### Instructions for campus-based discussions:

1. Share copies of the assessment instrument, the rubric and the data report with those involved in the discussion. (The majority of faculty who typically teach the course should be involved in this discussion.)
2. Plan a meeting to discuss the process, materials and results. (You may want to use a department meeting.)
3. Discuss the assessment materials, the course and the results using the suggested questions below or other questions you might develop. (If you would like the OA team to facilitate your meeting, please contact Ken Weiner or Samantha Streamer-Veneruso.)
4. Based on your discussion, record the primary observations and recommendations on one copy of the attached form.
5. Turn in an electronic copy of the form to the College-wide OA Team ([outcomesassessment@montgomerycollege.edu](mailto:outcomesassessment@montgomerycollege.edu)) by **December 1, 2006**, and save a copy to use in college-wide discussions.

## Suggested Discussion Questions

### **Learning Outcomes:**

- Were the learning outcomes that were assessed core outcomes for the course; that is, did they describe the kind of analytic or critical thinking, or skills and abilities, that the discipline feels all successful students should take away from the course?
- Were students made aware of these learning outcomes prior to the assessment, and if so how?

### **Assessment Instrument:**

- Did the assessment questions or assignments assess the learning outcomes; that is, did student performance on these provide strong information about how well students achieved the learning outcomes?
- Were the assessment questions or assignments clearly worded?
- Do classroom experiences align with or support the intended outcomes and the assessment, so that students are prepared to succeed?

### **Assessment Rubric:**

- For assessment questions that weren't objective in nature, e.g., multiple choice or fill in the blank, was your scoring rubric clear and easy to apply?
- Did the rubric adequately reflect the standards that your discipline adheres to?

### **Assessment Process:**

- Was communication about the expectations of the process clear and early enough to all instructors who participated in the full-scale implementation?
- Was the assessment administered with reasonable uniformity across all sections; e.g., approximately the same timeframe of the semester, similar explanations to students, etc.
- Did instructors understand how to enter data into the scoring spreadsheets?

### **Assessment Results:**

- What do the assessment results say about how well all students, or particular subgroups of students based on the data breakouts, achieve the intended learning outcomes?
- Are there new or different things that the discipline thinks would be worth trying that might improve future results?
- Is there additional analysis of the existing data that might provide greater insight into the meaning of the results?



# OUTCOMES ASSESSMENT

## Part I: Campus SLO Observations & Recommendations Form

Course: \_Writing Reliability\_

Campus Recommendations Point of Contact: \_\_\_\_\_

Learning Outcomes

**Observations:**

- There is not a clear understanding of what college-level writing looks like. Group members felt that there needed to be a clearer articulation of what the different dimensions/expectations for writing mean and that articulation should include discipline specific standards where appropriate.
- Some faculty felt that they were not adequately prepared to respond to writing beyond content and that the scoring of these assignments was difficult because they weren't comfortable with the expectations from other disciplines.
- The question of whether students saw the scoring rubrics or were informed in any way of the expectations for the assignments before they completed them was brought up. It was felt that students should be given copies of the scoring rubrics and/or standards before they completed the assignments.
- It was observed that students don't see the connections between their writing in EN courses and other courses which require writing. There is a disconnect for students which should be addressed.
- The question of whether the responsibility of a General Education course is to teach a competency or is to encourage or use the competency. It is not clear whether a Gen Ed course is required to address the Gen Ed competencies as a part of student learning in a course (ie. Teach the competency) or whether a course is just required to encourage the competency. For example, is a course which has writing in it responsible for teaching or reinforcing writing skills or is it enough to give students practice in the competency without specific guidance and feedback.
- There is no active discussion in disciplines of what it means to teach a General Education course.

**Recommendations:**

- A set of interdisciplinary, college-wide writing standards needs to be developed and clearly articulated. This development should be done with college-wide input and should be clearly communicated to the college community including students.
- The College should support and encourage the growth of the Writing in the Disciplines group. This group should develop a sustainable entity with a charge of continually engaging and educating the College community about writing standards, responding to writing and using writing in disciplines.
- The Gen ED Committee should articulate expectations for being a General Education and should have a clear vehicle to communicate those expectations to the college-wide community (including students).

<p>Assessment Instrument</p>	<p>Observations:</p> <ul style="list-style-type: none"> <li>• Some of the writing assignments assigned as part of the assessment project don't reflect college level expectations. It was felt that some of the assignments weren't challenging enough or didn't reflect college-level difficulty.</li> </ul> <p>Recommendations:</p> <ol style="list-style-type: none"> <li>1. Writing expectations should be clearly articulated to students via the student-handbook, syllabi or other course materials and via the Gen ED program.</li> <li>2. Assignments given in writing classes should be aligned with discipline and college-wide standards possibly through CTL opportunities and Writing in the Disciplines work.</li> <li>3. The Writing in the Disciplines group should spearhead the effort to develop resources and opportunities for instructors to integrate writing into their courses.</li> </ol>
<p>Rubric</p>	<p>Observations:</p> <ul style="list-style-type: none"> <li>• Faculty were more likely to agree on scores for organization and mechanics, and less likely to agree on scores for development. This seems to suggest that development is an area which needs more clarification.</li> <li>• It was brought up that a bank of rubrics instructors could use or modify would be useful.</li> <li>• Unsurprisingly, there was general feeling that good writing was easy to recognize, but it was difficult to identify and score borderline writing.</li> <li>• It seemed that there was more agreement in grammar and mechanics and organization were easier for people to score while development was significantly more difficult to reliably score.</li> </ul> <p>Recommendations:</p> <ul style="list-style-type: none"> <li>• A common rubric should be developed based on an agreed upon college-wide writing expectations. The rubric should be clearly communicated to the college community. This rubric should be used for the next assessment of Writing Effectively; however, it should not be required for use by individual instructors in grading.</li> </ul>

Assessment Process	<p>Observations:</p> <ul style="list-style-type: none"> <li>• The need for interdisciplinary norming was raised. It was observed that the Outcomes Assessment process didn't allow for time to norm effectively.</li> <li>• Reliability studies should be done for each Gen Ed competency we assess.</li> <li>• The development of common assessment tools for Gen Ed competencies is important to this process.</li> <li>• Interdisciplinary groups must be part of the process.</li> </ul> <p>Recommendations:</p> <ul style="list-style-type: none"> <li>• Writing expectations should be clearly articulated to students via the student-handbook, syllabi or other course materials and via the Gen ED program.</li> <li>• For Outcomes Assessment purposes, the OA team with the writing reliability group, and possibly in conjunction with Writing in the Disciplines group, should develop a handbook of interdisciplinary examples of assignments and student writing which reflect the accepted standards for Outcomes Assessment purposes. Each sample should have discussion which explains why it meets standards. The handbook should be available via the web and in hardcopy.</li> <li>• In all OA projects, student releases for samples should be included either as part of the syllabus or as a separate document.</li> </ul>
Assessment Results	<p>Observations:</p> <ul style="list-style-type: none"> <li>• There was not strong agreement among interdisciplinary faculty about writing.</li> <li>• College-wide discussions of writing standards and writing assignments would be beneficial.</li> </ul> <p>Recommendations:</p> <ul style="list-style-type: none"> <li>• The College should support and encourage the growth of the Writing in the Disciplines group. This group should develop a sustainable entity with a charge of continually engaging and educating the College community about writing standards, responding to writing and using writing in disciplines.</li> </ul>

One electronic copy of this form should be submitted by each campus to the College-wide Outcomes Assessment Team ([outcomes@montgomerycollege.edu](mailto:outcomes@montgomerycollege.edu)) by December 1, 2006.

**Note: The observations and recommendations listed above are from a draft of the “Writing Reliability Report” based on the reliability study completed for the assessment of the Gen Ed communication competency. These recommendations and observations are being reviewed.**



## OUTCOMES ASSESSMENT

### Instructions for completing OA Discipline Summary Recommendations form (Part II-Recommendations)

Once each campus has had the opportunity to review the course Outcomes Assessment data and make campus-based observations and recommendations, there should be a college-wide discipline discussion of the same aspects. The purpose of this discussion is to share observations and recommendations, adopt campus-based recommendations college-wide if appropriate, and generally, to share ideas about the achievement of students in the course.

Discipline discussions will most optimally take place during the January professional week when college-wide gatherings are more easily achieved. The discipline discussion should focus on the same questions as the campus based discussions. The campus based recommendations and observations forms from each campus should be shared. This discipline reflection on the OA process, what it reflected about student achievement, and what the discipline might take away from the discussion should result in a *summary list of recommendations which the discipline and campuses will undertake in the next two years*.

---

#### Instructions for discipline discussions:

6. Share copies of the assessment instrument, the rubric, the data report, and the campus based recommendations form with those involved in the discussion. (The majority of faculty, college-wide who typically teach the course should be involved in this discussion.)
7. Plan a college-wide meeting to discuss the process, materials, results and recommendations. (You may want to use a discipline meeting.)
8. Discuss the assessment materials, the course and the results using the suggested questions below or other questions you might develop. (If you would like the OA team to facilitate your meeting, please contact Ken Weiner or Samantha Streamer-Veneruso.)
9. Based on your discussion, summarize the campus-based and college-wide recommendations which the campuses and the disciplines will implement in the next two years.
10. Send the summary list of recommendations and observations to each dean who is responsible for the discipline requesting comment and sign off.
11. Turn in an electronic copy of the form and forward dean approvals to the College-wide OA Team ([outcomes@montgomerycollege.edu](mailto:outcomes@montgomerycollege.edu)) by **February 15, 2007**.

## Suggested Discussion Questions

### **Learning Outcomes:**

- Were the learning outcomes that were assessed core outcomes for the course; that is, did they describe the kind of analytic or critical thinking, or skills and abilities, that the discipline feels all successful students should take away from the course ?
- Were students made aware of these learning outcomes prior to the assessment, and if so how?

### **Assessment Instrument:**

- Did the assessment questions or assignments assess the learning outcomes; that is, did student performance on these provide strong information about how well students achieved the learning outcomes?
- Were the assessment questions or assignments clearly worded?
- Do classroom experiences align with or support the intended outcomes and the assessment, so that students are prepared to succeed?

### **Assessment Rubric:**

- For assessment questions that weren't objective in nature, e.g., multiple choice or fill in the blank, was your scoring rubric clear and easy to apply?
- Did the rubric adequately reflect the standards that your discipline adheres to?

### **Assessment Process:**

- Was communication about the expectations of the process clear and early enough to all instructors who participated in the full-scale implementation?
- Was the assessment administered with reasonable uniformity across all sections; e.g., approximately the same timeframe of the semester, similar explanations to students, etc.
- Did instructors understand how to enter data into the scoring spreadsheets?

### **Assessment Results:**

- What do the assessment results say about how well all students, or particular subgroups of students based on the data breakouts, achieve the intended learning outcomes?
- Are there new or different things that the discipline thinks would be worth trying that might improve future results?
- Is there additional analysis of the existing data that might provide greater insight into the meaning of the results?



# OUTCOMES ASSESSMENT

## Part II-Discipline SLO Summary Recommendations Form

Course: Writing Reliability

Recommendations: Point of Contact

### Summary Recommendations:

List the discipline's primary campus-based and college-wide recommendations from the Observations and Recommendations Forms. Only include those recommendations which the discipline and campuses determine should be implemented within the next two academic years. Recommendations should be listed by priority and should include a proposed semester and year of implementation. For campus based recommendations, please indicate the campus. This form should include an email sign off by the discipline lead dean.

List discipline recommendations in priority order	College-wide or Campus	Sem & Yr of Implementation
1. A set of interdisciplinary, college-wide writing standards needs to be developed and clearly articulated. This development should be done with college-wide input and should be clearly communicated to the college community including students.	CW	FA 06-ongoing
2. A common rubric should be developed based on an agreed upon college-wide writing expectations. The rubric should be clearly communicated to the college community. This rubric should be used for the next assessment of Writing Effectively; however, it should not be required for use by individual instructors in grading.	CW	FA 06-ongoing
3. Writing expectations should be clearly articulated to students via the student-handbook, syllabi or other course materials and via the Gen ED program.	CW	SP 07
4. The College should support and encourage the growth of the Writing in the Disciplines group. This group should develop a sustainable entity with a charge of continually engaging and educating the College community about writing standards, responding to writing and using writing in disciplines.	CW	FA 06- ongoing
5. Assignments given in writing classes should be aligned with discipline and college-wide standards possibly through CTL opportunities and Writing in the Disciplines work.	CB	SP-07-ongoing
6. The Writing in the Disciplines group should spearhead the effort to develop resources and opportunities for instructors to integrate writing into their courses.	CW	FA 06-ongoing

7. For Outcomes Assessment purposes, the OA team with the writing reliability group, and possibly in conjunction with Writing in the Disciplines group, should develop a handbook of interdisciplinary examples of assignments and student writing which reflect the accepted standards for Outcomes Assessment purposes. Each sample should have discussion which explains why it meets standards. The handbook should be available via the web and in hardcopy.	CW	SP 07- ongoing
8. In all OA projects, student releases for samples should be included either as part of the syllabus or as a separate document.	CW	FA 06
9. The Gen ED Committee should articulate expectations for being a General Education and should have a clear vehicle to communicate those expectations to the college-wide community (including students).	CW	FA 07

One electronic copy of this form reflecting discipline consensus should be submitted to the College-wide Outcomes Assessment Team ([outcomes@montgomerycollege.edu](mailto:outcomes@montgomerycollege.edu)) by February 15, 2007. Dean approvals should be forwarded to the COAT via email.

**Note: The observations and recommendations listed above are from a draft of the “Writing Reliability Report” based on the reliability study completed for the assessment of the Gen Ed communication competency.**

# **Semester Checklists**

**Use the following checklists to guide you through each semester.**

**Electronic versions of these checklists can be found at <http://www.montgomerycollege.edu/outcomes/>**

## Student Learning Outcomes Assessment Project- Discipline Preplanning

**Course:**

**Discipline:**

**Faculty Cadre:**

**Workgroup Members:**

One of the most important elements of the student learning outcomes assessment process at MC is the discipline conversation it generates. The process should begin with the discipline talking about the course and student learning, and it should end the same way. In this preplanning phase, a discipline discussion will lay the groundwork for the workgroup's work in the planning semester. By the end of the discipline discussion, the discipline should have identified key course outcomes and/or talked about those outcomes are reflected in course assignments. Additionally, if the course is assessing Gen Ed outcome(s), the discipline should determine how the assigned Gen Ed SLO is reflected in the course and course assignments. Finally, workgroup members should be confirmed or identified.

### Preplanning Checklist

This checklist is designed to help you get your SLO Project off to a good start

Tasks:

- \_\_\_\_\_ 1. Review the course outcomes (or objectives) with the discipline;
- \_\_\_\_\_ 2. Identify the 3-4 most important course goals/outcomes which the discipline agrees are core and might be assessed;
- \_\_\_\_\_ 3. Identify a variety of assignments used by various instructors to assess or instruct these goals;
- \_\_\_\_\_ 4. Talk as a discipline about how the assigned Gen Ed SLO is reflected in the course, if appropriate;
- \_\_\_\_\_ 5. Confirm or identify the workgroup members who will be leading the SLO project;
- \_\_\_\_\_ 6. Review the SLO Project timeline with the discipline.

## Student Learning Outcomes Assessment Project- Workgroup Tasks

### Semester 1- Planning

Course:

Discipline:

Faculty Cadre:

Workgroup Members:

During the planning semester, the workgroup should be developing the SLO Assessment plan and materials to prepare for the pilot. It is essential that this stage be completed with participation from all campuses which offer the course and in communication with the discipline.

### Semester 1- Planning Timeline

Task	Date
Workgroups attend SLO Assessment orientation	Professional Week
Workgroups identify course outcomes to assess and supporting student activities	September
Workgroups identify and develop an assessment tool	October
Workgroups develop scoring tools and approaches	November
Workgroups submit draft of SLO Assessment plan and materials to Academic Assessment Team	November 30
Workgroups get feedback on SLO plan and materials	End of semester

### Semester 1- Planning Checklist

This checklist is designed to guide workgroups through the planning semester.

Tasks:

- \_\_\_ 1. Based on discipline input, identify 3 course specific or Gen Ed SLOs to be assessed;
- \_\_\_ 2. Identify an assessment tool(s) to assess student performance on each SLO;
- \_\_\_ 3. Develop an implementation timeline/process for pilot and tentatively for full implementation;
- \_\_\_ 4. Develop a rubric or scoring scheme for the assessment tool including: Identify indicators or dimensions and student performance criteria;
- \_\_\_ 5. Solicit discipline feedback to SLO plan and assessment materials
- \_\_\_ 6. Attend OA workgroup meetings and work with COAT cadre as necessary;
- \_\_\_ 7. Solicit Lead Dean approval of the SLO plan and materials;
- \_\_\_ 8. Revise SLO plan or materials based on COAT, discipline or Lead Dean feedback;  
Submit a final draft of the SLO plan and materials to COAT;

## Student Learning Outcomes Assessment Project-Workgroup Tasks

### Semester 2- Pilot

**Course:**

**Discipline:**

**Faculty Cadre:**

**Workgroup Members:**

During the pilot semester, the workgroup and the discipline should be confirming the assessment plan and materials by piloting them in several sections. Additionally, the workgroup will revise materials as needed and develop a plan to complete the full implementation of the plan.

### Semester 2- Pilot Timeline

<b>Task</b>	<b>Date</b>
Workgroups solicit discipline feedback and identify pilot sections	Jan. Professional Week
Workgroups submit final SLO plan, pilot materials and pilot sections with instructors' names	February 15
Faculty implement pilot assessment	based on OA plan timeline
Workgroups solicit feedback on materials and process from the pilot participants.	By end of the semester
Attend Chair/Dean/Workgroup implementation work session	June
Workgroups develop plan for full implementation	Summer
Workgroups revise SLO materials as needed based on discipline feedback	Summer

### Semester 2- Pilot Checklist

This checklist is designed to guide workgroups through the pilot semester.

Tasks:

- \_\_\_\_ 1. Solicit and incorporate Dean and college-wide discipline feedback;
- \_\_\_\_ 2. Complete final SLO plan and draft assessment materials;
- \_\_\_\_ 3. Identify pilot sections college-wide including full time and adjunct instructors;
- \_\_\_\_ 4. Disseminate pilot materials to participating instructors;
- \_\_\_\_ 5. complete pilot;
- \_\_\_\_ 6. Solicit discipline feedback on pilot and materials;
- \_\_\_\_ 7. Develop materials to communicate SLO project and materials for full discipline implementation;
- \_\_\_\_ 8. Identify and address full implementation needs.

## Student Learning Outcomes Assessment Project- Workgroup Tasks

### Semester 3- Full Implementation

**Course:**

**Discipline:**

**Faculty Cadre:**

**Workgroup Members:**

During the 3rd semester, the discipline will complete the full implementation of the SLO project. This means that instructors in all sections, college-wide will administer and score the assessment during the semester.

### Semester 3- Full Implementation Timeline

Task	Date
Disseminate assessment materials and instructions to faculty teaching the course	By Fall Professional Week
Submit any revised assessment materials including timeline, assignment or scoring rubric to Outcomes Assessment Team at outcomes@montgomerycollege.edu	By first day of classes
Verify scoring spreadsheet, all CRN's and instructor names for all faculty teaching the course; submit email contact for all faculty teaching the course	4 <sup>th</sup> week of classes
Complete full implementation of SLO Assessment Plan	As indicated by implementation timeline

### Semester 3- Full Implementation Checklist

This checklist is designed to guide workgroups through the full implementation semester.

Tasks:

- \_\_\_\_ 1. Make and submit all necessary revisions to the assessment materials including assignment and scoring rubric;
- \_\_\_\_ 2. Communicate the assessment plan and materials to all full and part-time faculty teaching the course;
- \_\_\_\_ 3. Develop any training or instructional material necessary to implementing the SLO Assessment project;
- \_\_\_\_ 4. Complete any trainings necessary for completing the project;
- \_\_\_\_ 5. verify the spreadsheet layout for full implementation;
- \_\_\_\_ 6. verify CRN's and instructor names for the full implementation;
- \_\_\_\_ 7. Submit the instructor email contact for all instructors teaching the course;
- \_\_\_\_ 8. Remind instructors as necessary about the full implementation;
- \_\_\_\_ 9. Follow up with faculty who haven't administered the assessment and/or submitted the scores.

## Student Learning Outcomes Assessment Project- Workgroup Tasks

### Semester 4 - Recommendations

Course:

Discipline:

Faculty Cadre:

Workgroup Members:

During the 4<sup>th</sup> semester, the discipline will review the data from the assessment and make recommendations about it. This is a crucial stage for Outcomes Assessment because it is this stage when the discipline can reflect on what it has been doing well and on what might benefit from change.

### Semester 4 - Recommendations Timeline

Task	Date
Review initial data, share with discipline and request additional data	Spring Semester
Complete Campus Recommendations and Observations Form	May 1
Discipline Recommendations Meeting	Fall. Prof Week
Complete Discipline and Campus Summer Recommendations Form with Lead Dean sign off	Sept 15
Implement Recommendations	As indicated by Discipline
Plan for next SLO Assessment Project	Ongoing

### Semester 4 - Recommendations Checklist

This checklist is designed to guide workgroups through the recommendation semesters.

Task:

- \_\_\_ 1. Determine what data the discipline needs reported and requested it from COAT;
- \_\_\_ 2. Share the initial data with the discipline;
- \_\_\_ 3. Plan Campus based observations and recommendations meetings;
- \_\_\_ 4. Complete Campus Recommendations and Observations Form
- \_\_\_ 5. complete and submit Campus Recommendations and Observations form;
- \_\_\_ 6. Plan a discipline-wide recommendations meeting to review data and make recommendations;
- \_\_\_ 7. Complete and submit Discipline Summary Recommendations form;
- \_\_\_ 8. Have a discipline wide discussion of when to implement a new SLO project;

# **Appendix B**

## **General Education Resources**

**MONTGOMERY COLLEGE**  
**Office of the Executive Vice President for Academic and Student Services**

November 17, 2005

**MEMORANDUM**

To: Collegewide Faculty

From: Mary Kay Shartle-Galotto, Executive Vice President for Academic and Student Services  
William E. Campbell, Executive Vice President for Administrative and Fiscal Services

Subject: Protocol for Collection of Student Learning Outcomes (SLO) Data

The purpose of this memo is to distribute the Protocol for Collection and Use of Student Learning Outcomes Assessment Data at Montgomery College. Once again this year we are in the process of collecting data for Outcomes Assessment and for assessing learning outcomes. This activity supports requirements of the Maryland Higher Education Commission and our Middle States accreditation process. Its purpose is to measure the effectiveness of academic experiences in achieving the intended student learning outcomes for a course or program. It is not intended, as clearly stated in the protocol, and will not be used to evaluate individual faculty members. Please review this document carefully, and direct any questions to Dr. Ken Weiner or to the Office of the Executive Vice President for Academic and Student Services.

We wish you every success as we move forward together to assess the effectiveness of our programs, courses, activities and services in achieving their learning outcomes, and determine how to use the results appropriately to improve academic experiences.

MKSG:rrd

Attachment

cc: Vice President and Provosts  
Instructional Deans  
Deans of Student Development  
Chair, Academic Assembly  
Chair, Staff Senate  
President, AAUP

## **Protocol for Collection and Use of Student Learning Outcomes Assessment Data at Montgomery College**

### 1. Purpose of Student Learning Outcomes (SLO) Assessment Projects:

Montgomery College is committed to the Learning College and Outcomes Assessment concepts, as outlined in the *Greater Expectations* report issued by the American Association of Universities and Colleges. Efforts to strengthen outcomes assessment and infuse the learning concept into all aspects of Montgomery College are particularly timely given the importance ascribed to these initiatives by The Middle States Association and the Maryland Higher Education Commission. Both agencies are now mandating assessment data for reaccreditation and annual state reporting.

The primary purpose of the SLO assessment projects is to measure the effectiveness of academic experiences, i.e., programs, courses, activities, and services in achieving their intended student learning outcomes, and to use the results to improve these academic experiences as necessary and appropriate. *SLO assessment data will not be used to evaluate the performance of individual faculty members or any other College personnel.*

### 2. Type of SLO Data Generally Required

SLO assessment data will be most valuable to faculty if the researchers\* have the capability of breaking out the data according to particular student characteristics, such as number of credits completed. In order to do this it is essential that SLO assessment data be identifiable by student PIDM, the student identifier in the Banner student production database. It is not necessary for student assessment data to be identifiable by name or social security number.

### 3. Confidentiality of SLO Data

The raw data used in assessing SLO will not be made available by the researchers to college administrators or any individuals who are directly involved with the College's faculty evaluation process. In general, SLO assessment record data, that is data identifiable by a student or faculty identifier, will be available only to the researchers, or to an individual designated by the participating faculty member for data entry purposes.

### 4. Reporting of SLO Assessment Data

Under no circumstances will data be reported in such a way that would make it possible for the information to be linked to an individual student or faculty member. So that results cannot be linked to any one faculty member, only data that has been aggregated across courses taught by at least 3 faculty members will be reported.

*\* Within this document "researchers" refers to Outcomes Assessment Team faculty members and OIRA staff involved with the analysis of outcomes assessment data.*

## The Five Initial General Education Competencies

### 1. Written and oral communication:

Competency in written and oral communication includes the ability to communicate effectively in verbal and written language, the ability to use a variety of modern information resources and supporting technologies, the ability to differentiate content from style of presentation, and the ability to suit content and style to the purpose of communication.

### 2. Scientific and quantitative reasoning:

Competency in scientific and quantitative reasoning includes the ability to locate, identify, collect, organize, analyze and interpret data, and the ability to use mathematics and the scientific method of inquiry to make decisions, where appropriate.

### 3. Critical analysis and reasoning:

Competency in critical analysis and reasoning includes the ability to arrive at reasoned and supportable conclusions using sound research techniques, including inference, analysis and interpretation.

### 4. Technological competency:

Technological competency includes the ability to use computer technology and appropriate software applications to produce documentation, quantitative data presentations and functional graphical presentations appropriate to various academic and professional settings.

### 5. Information literacy:

Information literacy includes the ability to identify, locate and effectively use information from various print and electronic sources.

Note: Additional competencies are under consideration by the College-wide General Education Committee

**General Education Survey**

**Course name and number:**

**Submitted on behalf of the discipline by:**

For the course designated above please rate the importance of each of the following 13 competencies listed below. Do so from the perspective of how much the course is designed to help students develop the stated competency, rather than in terms of the general worthiness of the competency or its overall importance to the MC academic mission.

In each of the items please circle only one response on the 1 to 5 rating scale. You may find it helpful to quickly read through all 13 competencies *before* rating their relative importance to this course. When rating the importance of each competency within the designated course please use the following scale:

- (5) **Essential**            A competency that this course is designed to **always/nearly always** achieve (76% to 100% of the time)
- (4) **Very Important**    A competency that this course is designed to **very often** try to achieve (51% to 75% of the time)
- (3) **Important**            A competency that this course is designed to **sometimes** try to achieve (26% to 50% of the time)
- (2) **Unimportant**        A competency that this course is designed to **rarely** try to achieve (1% to 25% of the time)
- (1) **Not Applicable**    A competency that this course is designed to **never** try to achieve

Rate the importance of each competency below in terms of how much this course is designed to have students accomplish the competency.

<b>Written and oral communication:</b>	<i>Essential</i>					<i>Very Important</i>		<i>Important</i>		<i>Unimportant</i>		<i>Not Applicable</i>		<b>Is this directly assessed?</b>		<b>If yes, in what ways?</b>	
	5	4	3	2	1	yes	no										
1. Communicating effectively in verbal language	5	4	3	2	1	yes	no	_____									
2. Communicating effectively in written language	5	4	3	2	1	yes	no	_____									
3. Using a variety of modern information resources and supporting technologies	5	4	3	2	1	yes	no	_____									
4. Differentiating content from style of presentation	5	4	3	2	1	yes	no	_____									

5. Adapting content and style to the purpose of communication	5	4	3	2	1	yes	no	
---	---	---	---	---	---	-----	----	--

**Scientific and quantitative reasoning:**

6. Locating, collecting, and organizing data	5	4	3	2	1	yes	no	
--	---	---	---	---	---	-----	----	--

7. Analyzing and interpreting data	5	4	3	2	1	yes	no	
------------------------------------	---	---	---	---	---	-----	----	--

8. Using mathematics to make decisions	5	4	3	2	1	yes	no	
--	---	---	---	---	---	-----	----	--

9. Using the scientific method of inquiry to make decisions	5	4	3	2	1	yes	no	
---	---	---	---	---	---	-----	----	--

**Critical Analysis and reasoning:**

10. Using inference, analysis, and interpretation to arrive at reasoned and supportable conclusions	5	4	3	2	1	yes	no	
---	---	---	---	---	---	-----	----	--

**Technological Competency:**

11. Using computer technology and software to produce documentation for various academic and professional settings.	5	4	3	2	1	yes	no	
---	---	---	---	---	---	-----	----	--

12. Using quantitative data and functional graphical presentations for various academic and professional settings	5	4	3	2	1	yes	no	
---	---	---	---	---	---	-----	----	--

**Information Literacy:**

13. Identifying, locating, and making effective use of information from various electronic and print sources	5	4	3	2	1	yes	no	
--	---	---	---	---	---	-----	----	--

# **Appendix C**

## **Additional Resources**

## AAHE's 9 Principles of Good Practice for Assessing Student Learning

- 1. The assessment of student learning begins with educational values.** Assessment is not an end in itself but a vehicle for educational improvement. Its effective practice, then, begins with and enacts a vision of the kinds of learning we most value for students and strive to help them achieve. Educational values should drive not only *what* we choose to assess but also *how* we do so. Where questions about educational mission and values are skipped over, assessment threatens to be an exercise in measuring what's easy, rather than a process of improving what we really care about.
- 2. Assessment is most effective when it reflects an understanding of learning as multidimensional, integrated, and revealed in performance over time.** Learning is a complex process. It entails not only what students know but what they can do with what they know; it involves not only knowledge and abilities but values, attitudes, and habits of mind that affect both academic success and performance beyond the classroom. Assessment should reflect these understandings by employing a diverse array of methods, including those that call for actual performance, using them over time so as to reveal change, growth, and increasing degrees of integration. Such an approach aims for a more complete and accurate picture of learning, and therefore firmer bases for improving our students' educational experience.
- 3. Assessment works best when the programs it seeks to improve have clear, explicitly stated purposes.** Assessment is a goal-oriented process. It entails comparing educational performance with educational purposes and expectations -- those derived from the institution's mission, from faculty intentions in program and course design, and from knowledge of students' own goals. Where program purposes lack specificity or agreement, assessment as a process pushes a campus toward clarity about where to aim and what standards to apply; assessment also prompts attention to where and how program goals will be taught and learned. Clear, shared, implementable goals are the cornerstone for assessment that is focused and useful.
- 4. Assessment requires attention to outcomes but also and equally to the experiences that lead to those outcomes.** Information about outcomes is of high importance; where students "end up" matters greatly. But to improve outcomes, we need to know about student experience along the way -- about the curricula, teaching, and kind of student effort that lead to particular outcomes. Assessment can help us understand which students learn best under what conditions; with such knowledge comes the capacity to improve the whole of their learning.
- 5. Assessment works best when it is ongoing not episodic.** Assessment is a process whose power is cumulative. Though isolated, "one-shot" assessment can be better than none, improvement is best fostered when assessment entails a linked series of activities undertaken over time. This may mean tracking the process of individual students, or of cohorts of students; it may mean collecting the same examples of student performance or using the same instrument semester after semester. The point is to monitor progress toward intended goals in a spirit of continuous improvement. Along the way, the assessment process itself should be evaluated and refined in light of emerging insights.
- 6. Assessment fosters wider improvement when representatives from across the educational community are involved.** Student learning is a campus-wide responsibility, and assessment is a way of enacting that responsibility. Thus, while assessment efforts may start small, the aim over time is to involve people from across the educational community. Faculty play an especially important role, but assessment's questions can't be fully addressed without participation by student-affairs educators, librarians, administrators, and students. Assessment may also involve individuals from beyond the campus (alumni/ae, trustees, employers) whose experience can enrich the sense of appropriate aims and standards for learning. Thus understood, assessment is not a task for small groups of experts but a collaborative activity; its aim is wider, better-informed attention to student learning by all parties with a stake in its improvement.
- 7. Assessment makes a difference when it begins with issues of use and illuminates questions that people really care about.** Assessment recognizes the value of information in the process of improvement. But to be useful, information must be connected to issues or questions that people really care about. This implies assessment approaches that produce evidence that relevant parties will find credible, suggestive, and applicable to decisions that need to be made. It means thinking in advance about how the information will be used, and by whom. The point of assessment is not to gather data and return "results"; it is a process that starts with the questions of decision-makers,

that involves them in the gathering and interpreting of data, and that informs and helps guide continuous improvement.

8. **Assessment is most likely to lead to improvement when it is part of a larger set of conditions that promote change.** Assessment alone changes little. Its greatest contribution comes on campuses where the quality of teaching and learning is visibly valued and worked at. On such campuses, the push to improve educational performance is a visible and primary goal of leadership; improving the quality of undergraduate education is central to the institution's planning, budgeting, and personnel decisions. On such campuses, information about learning outcomes is seen as an integral part of decision making, and avidly sought.
9. **Through assessment, educators meet responsibilities to students and to the public.** There is a compelling public stake in education. As educators, we have a responsibility to the publics that support or depend on us to provide information about the ways in which our students meet goals and expectations. But that responsibility goes beyond the reporting of such information; our deeper obligation -- to ourselves, our students, and society -- is to improve. Those to whom educators are accountable have a corresponding obligation to support such attempts at improvement.

**Authors:** Alexander W. Astin; Trudy W. Banta; K. Patricia Cross; Elaine El-Khawas; Peter T. Ewell; Pat Hutchings; Theodore J. Marchese; Kay M. McClenney; Marcia Mentkowski; Margaret A. Miller; E. Thomas Moran; Barbara D. Wright

<http://www.aahe.org/assessment/principi.htm>

## Sample Outcomes Assessment Instructions

Montgomery College is participating in an evaluation process known as Outcomes Assessment. All sections of Introduction to Taxidermy 101 will be participating in this project during the Fall 2005 semester. This packet contains information about this project as well as instructions on how to conduct the evaluation protocol developed by Montgomery College and our department.

1. Please read the Assessing Student Learning Outcomes handout and the college statement about the project included in this packet.
2. Through an Internet Assignment, anthropology faculty will measure student effectiveness in three areas: information literacy, student writing, and course content. All instructors (both full-time and adjunct) teaching TX 101 **MUST** have their students complete this assignment (handout included in this packet) during the last 3 weeks in the semester.
3. Faculty will grade the assignment and score the students' work using the Rubric for the TX 101 Internet Assignment (also included in the packet). To facilitate using the rubric, each instructor will receive an Excel spreadsheet with the categories in place. The instructor will enter the identification numbers from the class roster and score the students' work as below standard, standard, or above standard for each of the nine areas listed on the rubric. The internet assignment should be graded and scored using the rubric during the last 3 weeks in the semester.
4. All instructors will submit their completed rubrics for their class to the Outcomes Assessment team at the college ([-----@montgomerycollege.edu](mailto:-----@montgomerycollege.edu)). If you are teaching at Rockville please notify ([Tom.Clancy@montgomerycollege.edu](mailto:Tom.Clancy@montgomerycollege.edu)) Mary Gallagher when you have submitted your completed rubric. If you are teaching at Germantown, please notify ([Sonia.Henie@montgomerycollege.edu](mailto:Sonia.Henie@montgomerycollege.edu)). These individuals are available at any time to answer any questions or help with problems about the assignment or the rubric.
5. Please note that the grade you give to students for this assignment may be different from the rubric score you submitted to the Outcomes Assessment Team. Also note that you are free to share as much or as little of the rubric as you wish with your students before or after their participation in this project.

The College will be investigating the scores and their relationship to variables such as gender, age, total credits completed at the college, and if the students have completed EN 101 and EN 102. The findings will be discussed during the Spring 2006 professional week meetings and the results will be shared with all participating instructors.

Thank you for your efforts and compliance to help us complete this project successfully.

Tom Clancy 301-251-1010

Sonia Henie 301-353-6999

## Sample Rubrics for an Information Literacy Outcome

Outcome: Identifying, locating, and making effective use of information from various electronic and print sources.

### *Holistic rubric*

- **Exemplary** – Demonstrates all or most of the following
  - Develops clear, manageable, and focused research questions or thesis statement.
  - Identifies the purpose and audience of potential resources, correctly selects from popular and academic sources, primary and secondary sources for the given assignment.
  - Explores and retrieves information from a wide variety of both electronic and print sources, including full-text indexes or databases; displays an understanding that potential sources may have specific purposes and audiences.
  - Summarizes main ideas from information sources and can restate textual concepts in own words with appropriate citations.
- **Satisfactory** – Demonstrates all or most of the following
  - Develops research questions or thesis statement, but may be somewhat too broad or specific for assignment scope.
  - Correctly distinguishes between popular and academic sources, primary and secondary sources.
  - Retrieves information from both electronic and print sources, but doesn't display an understanding that potential sources may have specific purposes and audiences.
  - Identifies verbatim material and appropriately quotes and cites it.
- **Unsatisfactory** – Demonstrates all or most of the following
  - Research questions or thesis statement unclear. May be far too broad or specific for assignment scope.
  - Does not distinguish between types of potential sources or chooses inappropriate sources for the given assignment.
  - Only retrieves information from either electronic or print sources primarily relies on one or the other to the exclusion of other appropriate sources.
  - Cannot summarize main ideas accurately and clearly. Does not cite sources appropriately.

**Overall score:**

*Dimensional rubric*

<b>Dimensions</b>	<b>Exemplary</b>	<b>Satisfactory</b>	<b>Unsatisfactory</b>
Identify info needs  Score:	Develops clear, manageable, and focused research questions or thesis statement.  Identifies the purpose and audience of potential resources, correctly selects from popular and academic sources, primary and secondary sources for the given assignment.	Develops research questions or thesis statement, but may be somewhat too broad or specific for assignment scope.  Correctly distinguishes between popular and academic sources, primary and secondary sources.	Research questions or thesis statement unclear. May be far too broad or specific for assignment scope.  Does not distinguish between types of potential sources or chooses inappropriate sources for the given assignment.
Locate info  Score:	Explores and retrieves information from a wide variety of both electronic and print sources, including full-text indexes or databases; displays an understanding that potential sources may have specific purposes and audiences.	Retrieves information from both electronic and print sources, but doesn't display an understanding that potential sources may have specific purposes and audiences.	Only retrieves information from either electronic or print sources primarily relies on one or the other to the exclusion of other appropriate sources.
Make effective use of info  Score:	Summarizes main ideas from information sources and can restate textual concepts in own words with appropriate citations.	Identifies verbatim material and appropriately quotes and cites it.	Cannot summarize main ideas accurately and clearly. Does not cite sources appropriately.
<b>Overall score:</b>			

## Pros and Cons of Using Various Types of Assessment

	<b>Pros</b>	<b>Cons</b>
<b>Objective Exams (e.g., Multiple-Choice, True/False, Matching, Short Answer)</b>	Faculty familiar with developing them	Feedback to student can be limited
	Easier to monitor possible plagiarism and cheating	May encourage surface learning only
	Cost-effective	Possibly measure students' test-taking ability vs. content knowledge & understanding
	Time-efficient to administer	Questions may be misinterpreted
	Facilitates rapid feedback through ease of scoring	May involve testing for low level knowledge only
	Broad coverage of content	Constructing high quality test questions may be difficult
		Generally, reliability and validity of tests are unknown
		Tendency to rely on publishers' test banks

### Tips for Objective Tests

- Collaborate on selected test questions to make sure they are targeting what you really want to assess
- Have unbiased readers check for misinterpretation
- Pay attention to question layout – make the test easy to follow
- Match your standards – it is easy for questions to get progressively more difficult year by year because YOU understand the material in a deeper way
- Always match syllabus objectives, intended learning outcomes and assessment questions. These should align directly.
- Let students know (by bracketing information on the test) how many points each question is worth and how much time it should take them to complete each section.
- Test questions out beforehand by embedding parts of the exam or similar questions in class assignments. See which ones are misunderstood ahead of time. Make changes as needed.

	<b>Pros</b>	<b>Cons</b>
<b>Essay Exams</b>	Allow for student individuality & expression	ESL students or students with poor writing/thinking skills may be at a disadvantage
	Can reflect the depth of student understanding and higher order thinking skills	May not cover entire range of knowledge
	May include application of Problem-Based learning	Take time to grade
	Develop writing and critical thinking skills	Consistency of grading may be an issue
	Inexpensive and easy to administer; fast to construct	Possible confusion about what is being assessed: writing skills, content, or both

### Tips for Essay Exams

- Create well-designed rubric for grading
- Assessment grading team should take time to calibrate their grading so that scores from all the sections of a course are consistent
- Give students criteria for grading essays beforehand and examples of well-written versus poorly written essays
- Show students how to create essay “organizers” for answering essay questions. This organizational structure helps students keep focused in their essays.

<b>Written work</b> (reports, papers, research projects, book reviews, etc.)	<b>Pros</b>	<b>Cons</b>
	Active process involving critical thinking skills and revision skills	May be difficult to judge the breadth of student learning
	More flexible for students in preparing the end product	Plagiarism may occur
	Learning occurs in the process as well as in the completion of the end product	Takes time to grade
	Usually represents integrated learning	Not easily quantified
Offers students the opportunity to demonstrate learning		

### Tips for Writing Assignments

- Make the assessment criteria explicit for written work
- Create well-designed rubric for grading
- Assessment grading team should take time to calibrate their grading so that scores from all the sections of a course are consistent
- Give students an understanding of the “weight” and distribution of the grade: e.g., content, correct form, and level of critical thinking
- Encourage students to submit drafts to facilitate student learning and for better end products
- You may consider using peer assessment before the final products are submitted
- Giving students timelines for completion may assist them in time management

<b>Portfolio Assessment</b>	<b>Pros</b>	<b>Cons</b>
	May contain evidence reflecting a wide range of skills & attributes such as research papers, exams, journals, case studies, CD-ROMs, DVDs, audio and videotapes, artwork, etc.	Assessment takes time
	Can reflect student learning over time	Difficult to assess objectively
	May reflect attitudes and values as well as skills & knowledge	Difficulty in grading consistency across diverse sets of portfolios
	Usually represents integrated learning	Not easily quantified
	Offers students the opportunity to demonstrate learning	Space needed for storage

**Tips for Portfolio Assessment**

- Propose a general format for assembly of portfolios and necessary items for inclusion
- Don't underestimate the time it takes to assess (or the weight to transport them!)
- Use rubrics and checklists for content assessment
- Provide interim assessment opportunities
- Allow students to see samples of successful portfolios
- Consider a final reflection on learning as part of the portfolio

## **Additional Resources on Assessing Student Learning Outcomes**

### **Websites**

The following are links to scholastic institutions that have strong and effective Outcomes Assessment programs:

[www.montgomerycollege.edu/outcomes](http://www.montgomerycollege.edu/outcomes) (Montgomery College)

[www.2.acs.ncse.edu/UPA/assmt/resource.htm](http://www.2.acs.ncse.edu/UPA/assmt/resource.htm) (NC State; an extensive set of internet resources)

[www.csufresno.edu/cetl/assessment/assmnt.html](http://www.csufresno.edu/cetl/assessment/assmnt.html) (California State at Fresno)

[www.umuc.edu/outcomes/index.shtml](http://www.umuc.edu/outcomes/index.shtml) (University of Maryland, University College)

[www.ccbcmd.edu/loa/index.html](http://www.ccbcmd.edu/loa/index.html) (Community College of Baltimore County)

---

### **Books**

The following are some print resources that provide excellent additional information about assessing student learning outcomes:

Allen, Mary J. Assessing Academic Programs in Higher Education. Boston: Anker Publishing Co, 2004.

U.S. Department of Education. Defining and Assessing Learning: Exploring Competency-Based Initiatives. Washington D.C.: U.S. Department of Education, 2002

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

Middle States Commission on Higher Education. Student Learning Assessment, Options and Resources. Philadelphia: Middle States Commission on Higher Education, 2003.

Nichols, James. A Practitioner's Handbook for Institutional Effectiveness and Student Outcomes Assessment Implementation. New York: Agathon Press, 1991.

Palomba, Catherine A., and Trudy W. Banta. Assessment Essentials: Planning, Implementing, and Improving Assessment in Higher Education. San Francisco: Jossey-Bass, 1999.

Walvoord, Barbara E. Assessment Clear and Simple: A Practical Guide for Institutions, Departments, and General Education. San Francisco: Jossey-Bass, 2004

