

# Articulating Student Learning Outcomes (SLOs) for MPC

Version 1.0

Approved November 29, 2007

**The MPC Academic Senate**

and the

**The SLO Articulation Committee**

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*“It’s all about engaging faculty in deciding on the instrument, making sure that the test covers some of the student learning outcomes they think are important, and then looking at scores to see what they say about whether students know those things or not, and using that information to improve teaching and student services.”*

—Trudy W. Banta, senior advisor to the chancellor for academic planning and evaluation at Indian University-Purdue University Indianapolis, quoted in “Campus Accountability Proposals Evolve,” *Chronicle of Higher Education*, June 26, 2007

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*“I remember one of my humanities classes in college that left me with an understanding of how the arts make us fully human, kind of “why” people want to live rather than “how” life came about or “what” to do to sustain it. I do know that a symphony or a fine theatrical performance frees my mind (and soul) to ponder much more than the details of my every day life.”*

—Laura Loop, MPC Nursing Instructor, in a 2007 e-mail about the accountability factor in SLOs

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*“Outcomes-assessment practices in higher education are grotesque, unintentional parodies of both social science and “accountability.” . . . Outcomes assessment inevitably will result in superficial competence, and students will be temporarily happier because art will suddenly be “clarified” for them. But the price will be terrible: lots of Thomas Kinkade and Frank Frazetta wannabes, but no aspiring Jasper Johnses or Helen Frankenthalers.”*

—Laurie Fendrich, professor of fine arts, Hofstra University,  
“A Pedagogical Straitjacket,” *Chronicle of Higher Education*, June 8, 2007

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## Introduction

In what is a paradigm shift of tectonic proportions, our accrediting agency has introduced Student Learning Outcomes into nearly every aspect of our accreditation standards. This action shifts the focus away from what we as teachers do as professionals, to what students can or should be able to do upon experiencing our courses, programs, and student services. It requires an adjustment in the way we think about our profession and the way we document our decisions regarding pedagogy, student evaluation, and resource allocation. This document/website seeks to define SLOs for MPC at the course and program level, to provide leadership and advice for developing SLOs for courses and programs, and, most importantly, to affirm that since SLOs clearly involve academic and professional matters, MPC faculty members have the responsibility and authority to develop SLOs for MPC courses and programs.

This document focuses on instructional SLOs, those SLOs that a student would be expected to demonstrate upon completing a course, or successfully completing sequences of courses, i.e., programs. Our accrediting agency has imposed SLO-based standards into nearly every aspect of our institutional life. This document addresses only instructional SLOs, leaving student service and administrative service SLOs to others to define. The rubric that accreditation visiting teams will use to evaluate MPC's adoption of SLOs is reproduced in Appendix A.

### A Short History: What is the Etiology of SLOs?

The short answer is "accountability". We live in an era of increasing demands for accountability from both the public and the state and federal governments. In the early 1980's, Secretary of Education T.H. Bell and the National Commission on Excellence in Education responded to "the widespread public perception that something is seriously remiss in our educational system," by producing a report called *A Nation at Risk: The Imperative for Educational Reform* (1983). This report was one of the first to conclude that higher education has not been accountable or effective. The flow of criticism has not abated; *Rules of the Game: How State Policy Creates Barriers to Degree Completion and Impedes Student Success in the California Community Colleges* (Shulock and Moore, 2007) is a recent example. Even the very concept of peer-reviewed accreditation has been attacked (for one example see *Why Accreditation Doesn't Work and What Policymakers Can Do About It*, ACTA, 2007; for a response, see: *Here We Go Again...Sin, Salvation and Accreditation*, CHEA, 2007). Critics want to know what students should be able to do after spending a sometimes very expensive two to four years at institutes of higher education.

In response to these attacks, accrediting agencies have shifted their accreditation standards to student learning outcomes, or statements of what students ought to be able to do when they exit a course, program, and/or institution. The emphasis has been on SLO statements that are measurable or evaluable so that data can be collected on the assessment results and adjustments to pedagogy can be implemented and/or resources allocated to improve the attainment of the SLOs, and ostensibly student learning. The rationale is that the best way to respond to criticism is for each institution to define for itself what students should be able to do after taking its courses and working their way through its programs. Furthermore, each institution should evaluate the extent to which

students can perform the institution's self-defined outcomes and then use the results to improve pedagogy and allocate resources.

The ASCCC (Academic Senate for California Community Colleges) originally resisted the implementation of the 2003 ACCJC (Accrediting Commission for Community and Junior Colleges) accreditation standards on grounds that SLO are an unfunded mandate and that there was a lack of evidence that SLOs improved student learning (Lieu, 2007). Although these conditions may still persist, the ASCCC has recently shifted their stance because they recognize that only through self-determination of SLOs and the new standards can they resist the Department of Education's efforts to federalize the accreditation process (Fulks, 2007). "Only in hindsight is the Academic Senate now able to see that the ACCJC's agreement to adopt SLOs was a pre-emptive action to forestall accreditation on a federal level," (Lieu, 2007). In doing so, the ASCCC has taken the initiative to define the role of SLO coordinators and to affirm the primacy of faculty in developing SLOs as an academic and professional matter (ASCCC, 2007).

## **A History of SLO Development at MPC**

MPC has worked on SLOs since 1999. Mary Nelson and Caroline Carney, among others, have been involved with SLO development at MPC from the beginning. Mary Nelson responded to requests for information with the following e-mail.

### **From Mary Nelson in an 8/30/07 e-mail:**

Around 1998-**1999**, several faculty attended a workshop on student learning outcomes in the Bay area.

Carole Bogue-Feinour convened an assessment task force and our focus was to run pilot programs. Nicole Crane from Marine Biology and Mary Nelson worked with their programs to chart how to best integrate SLOAC into our courses and programs. A paper on the definition of assessment was distributed spring semester **2002**.

In **1999**, our counterparts at CSUMB invited us to a workshop on Outcome based education. Amy Driscoll was the presenter. She was excellent and was invited to present an all faculty workshop at MPC which was held on Feb. 11, **2000**.

May 10, **2001** the college hosted a faculty workshop at Carmel Mission Inn. I gave a powerpoint presentation on my work with SLOs, and there were small discussion groups after that. I still have an agenda if you want one.

March 1, **2002** the college and HELP hosted a workshop in LF 102 featuring an overview of SLO's by Diane Cordero de Noriega from CSUMB, and a keynote address from Dr. Raj Gil, Professor, Computer Science Dept at Anne Arundel Community College. I served on a panel following the address along with faculty or staff from CSUMB, Cabrillo, Evergreen, Gavilan and Hartnell.

The task force continued working during this time, beginning to focus on general education and institutional outcomes. Meanwhile, most of the career technical programs,

under the guidance of Mary Nelson, completed outcomes for the programs that were added to the catalog. **2004-2005**

Several faculty, including Caroline Carney, attended a workshop in the Bay area in Spring **2005** (may have been earlier, I don't seem to have the date). Following that workshop, Mary worked intensively with some of the career programs who were interested in pursuing SLOs. During fall 2005 flex days Mary gave a session on learning outcomes.

Spring **2006** and Fall **2006**, Caroline and Mary teamed to present SLO hands on workshops. This is around the time we learned that SLOs would be included in the next accreditation. Mary and Caroline worked with programs undergoing program review (particularly Creative Arts) to provide guidance and forms for incorporating SLOs.

March 30, **2007** Mary Nelson attended a Senate sponsored regional meeting at Mission College where each college reported on the state of their SLOs. We have done more than some, less than others but considering we were one of the few colleges there without someone receiving released time or additional pay to shepherd learning outcomes, we have done very well.

Spring **2007** the college was required to submit a report on the status of SLOs. Mary met with some departments to assist them in completing the form.

## **Some Problems with SLOs**

SLOs have been a controversial subject at MPC. Over the years, many well grounded, rational objections to SLOs have been raised and discussed at MPC (over and over...and over and over again at times). They all came up again as this committee started its work. This section documents some of those objections, as well as some of our responses. In general, the SLO Articulation Committee recognizes that SLOs are probably not the best thing for teachers and student learning since a piece of chalk, but recognizes that their incorporation is mandated by our accreditation agency. We believe that trying to find the positive aspects of this situation at least has the potential for leading to something positive. In contrast, ignoring this mandate and hoping that SLOs will magically go away, or trying to execute a shoddily conceived plan will almost certainly lead to disaster.

Many of our worries and objections to SLOs are nicely summarized by Laurie Fendrich in a recent article published in [The Chronicle of Higher Education](#):

“Outcomes-assessment practices in higher education are grotesque, unintentional parodies of both social science and "accountability." No matter how much they purport to be about "standards" or student "needs," they are in fact scams run by bloodless bureaucrats who, steeped in jargon like "mapping learning goals" and "closing the loop," do not understand the holistic nature of a good college education.

While what's currently practiced as outcomes assessment may have a place in the fields of mathematics and the hard sciences (emphasis on the word may),

it's a destructive blunderbuss when applied to the arts and humanities. In trying to weed out poor teaching and in insisting on "student centered" learning, it uproots the best teaching and flattens all of it on a Procrustean bed of lesson plans and questionnaires.

As I think back over my own education, it's clear to me that some of my best professors taught in indirect, even enigmatic ways, and that their ideas and influences took years to really settle in. There was Peter Viereck, at Mount Holyoke, with whom I took two semesters of Russian history. Like Thucydides, he taught history through stories and anecdotes, tucking the necessary facts into narrative crannies. Later, in graduate school at the Art Institute of Chicago, I encountered Ray Yoshida; he was as laconic as a rock, but students valued like jewels the few piercingly perceptive words he'd say about their work. Both of those professors understood the greatest secret of teaching, the one that no one, anywhere, anytime, can ever chart: Only when there exists a mutual need of the student for the teacher and the teacher for the student can any teaching or learning take place. Yet neither of those men would rank very high by orthodox outcomes-assessment reckonings. They would probably have choked to death on a phrase like "learning objectives." ”

*-A Pedagogical Straightjacket* The Chronicle of Higher Education June 8, 2007  
by Laurie Fendrich Professor of Painting, Hofstra University

Via email, Professor Fendrich has told us that she is resigned to the fact that Hofstra University's accreditation depends upon the adoption of SLOs, and for that reason she has written and added SLOs to her course outlines. She participated in a department wide adoption of a Learning Assessment rubric, which she has generously shared with us. She also mentioned that she will “keep on talking--in public--about the Orwellian absurdities of Outcomes Assessment practices as they now exist, however. I've accepted an offer from the Chronicle to blog for them, and I intend to use my forum to hammer away at this monster.” Like those of us on the SLO Articulation Committee, Fendrich recognizes some of the pitfalls associated with SLOs, but concedes that because they are not worth risking accreditation over, she is willing to take part in her division's development of SLOs.

A non-exhaustive list of problems with SLOs that have been raised at MPC follows:

**SLOs will obstruct our academic freedom.**

MPC's academic freedom policy protects the instructor's right to evaluate, assign grades, and formulate learning outcomes consistent with the course description. From paragraph 6 of the (currently proposed) MPC academic freedom policy:

“Method of evaluation, formulation of objectives or outcomes consistent with the course description, and assignment of a final grade are the right and responsibility of the individual instructor. In order to maintain a climate of free inquiry for students, MPC recognizes that not all knowledge and educational benefit is immediate, concrete, or measurable. Evaluation of student learning may reflect factual knowledge when appropriate; however, in some disciplines, evaluation concerns qualities which are not measurable, do not represent factual knowledge, and/or cannot be stated in quantifiable

terms. Teachers of these subjects, therefore, should not be forced to measure student learning using quantifiable criteria.”

**SLOs are an educational slogan. They will be out of fashion with the next generation of politicians and administrators. Why should we waste our time?**

Student Learning Outcomes have become the standard for accreditation. The train has left the station. Whether we believe in SLOs or not, the mandate is clear. Our accreditation is based on them. We can either exercise a bit of individual control by writing our own SLOs and SLO policies, or we can hand over our control to others by allowing administrators and/or outside agencies to write them for us. Giving up control would be a mistake, and result in everybody’s worst nightmare.

**SLOs assert the false assumption that quality education is based upon the ability to accurately measure the achievement and success level of every student, class, program, certificate and degree.**

There is no way that SLOs can accurately address the needs nor assess the achievements of our extremely diverse student population. If we write simple, broad based SLOs we can fulfill the requirements of accreditation while addressing the needs of as many students as possible.

**SLOs are not compatible with my subject area.**

According to WASC, theater, music and dance performances, as well as visual arts portfolios may be cited as evidence of attainment of SLOs. If the physical education, arts and humanities faculty write their SLOs broadly, they will satisfy accreditation requirements.

**This is a lot of additional work that is not in our contract.**

SLOs are an unfunded mandate. The ASCCC has been concerned about this for many years, and the situation remains unresolved. The additional workload that some faculty will incur through this process is of great concern. Whereas some faculty members will be writing SLOs for 3-4 classes, others would be responsible for fifty or more. Even if the SLOs themselves are concise, the paperwork will be overwhelming. MPCTA has started to discuss this issue and ongoing collaborative work should be initiated. We intend to secure institutional support for those faculty members responsible for a great many classes.

**SLOs are no different than course objectives. Grades are a measure of student success. SLOs are totally redundant and a waste of time.**

According to SLO literature, objectives refer to the “building blocks” or “components” of a particular course or program, whereas SLOs represent the overarching “products” of a course or program, what a student can do upon successful completion of a course or program. Grades are the products of learning assessment methods; they are not SLOs. Accreditation requires that we evaluate how well we accomplish all aspects of our mission based on the concept of student learning outcomes, whereas the Ed Code requires that we establish course objectives that demonstrate the critical thinking in our classes and assign grades based on the attainment of those objectives.

**These mandates are patently political. SLOs are another step toward standardized testing in colleges and universities. They will not help students or teachers. Our resources should be spent on the real problems in education, not wasted on SLOs.** This may be true. It is certainly true that there is an organized movement toward standardized testing in higher education. We hope things change as “No Child Left Behind” is revealed as an un-funded, impossible mandate. We can attempt to influence politicians by becoming more politically active as individuals and as a college, through our union and our Academic Senate. In the meantime, we must protect our accreditation. As of Fall 2007, the Academic Senate has two planned flex day breakouts about effective ways to communicate with state and possibly federal agencies that influence higher education.

**SLOs belittle us and much of what we do as educators. They do not address the psychological and spiritual areas that we touch in our classes. They do not take into account the fact that students need time to digest and process what they have learned. SLOs are therefore pedestrian and meaningless.**

We must continually remind ourselves, our administrators and our students of the value of a broad based education that balances the “measurable” with the “immeasurable”. Ideally, our SLOs might include language that reminds us of the importance of the essential, yet less visible, aspects of our teaching. Many of us work toward goals for our students such as attainment of self esteem, development of personal voice, increased abilities to communicate with teachers and peers, increased intellectual curiosity, and increased ability to problem solve in arenas tangential to specific course content. SLOs do not typically address these types of goals because they are not as easily measured.

**If we assert in our SLOs that a student will be able to do something specific in a class, and then the student passes the class but does not land a job or get into a particular program, are we legally responsible? Would we have exposed ourselves to potential litigation?**

SLOs have evolved as an answer to those demanding accountability. The question is, by defining SLOs at MPC, how much are we promising a student will be able to do in environments outside the classroom? In response to this problem, our SLOs should be defined to specifically pertain to skills or thought processes demonstrated in the classroom without promise or implication for retention or future performance. See the pertinent section in the “Tips for Writing SLOs” chapter.

Debra Schulte-Hacker, chair of MPC’s Nursing program reports via an 11-5-07 e-mail, “There have been suits filed from nurses who have sued their nursing programs for not teaching them essential skills. For example, a nurse sued her nursing program in San Francisco when she stuck herself with a used needle, and then said no one taught her universal precautions.”

While it is absurd to think that a teacher might be held legally responsible for a former student’s performance failure in another arena, we live in a strange and often irrational time. Because SLOs are being mandated as an accountability measure, we worry that faculty MPC faculty will need legal representation in a worst case scenario. We recommend ongoing conversation/negotiation on this topic between our Academic Senate, faculty union, and administration.

## The Current State of Affairs at MPC

In fall Spring 2007, the MPC Academic Senate met in a retreat to define Academic Senate goals for the 2007-2008 academic year. One of the goals adopted by the Academic Senate was:

*Spearhead a faculty lead effort to articulate the meaning and value of SLOs at MPC*

- Collaborate with CAC to determine the best way to do this.
- Request release time for SLO coordinators.
- Use “Let’s Talk About Teaching” discussions to learn how our colleagues determine what their students should be able to do at the end of a class.
- Establish that faculty members “own” their SLOs
- Assure faculty play a strong role on the accreditation team
- Invite SLO experts to give guest lectures on SLO strategies

A number of these objectives have already been accomplished.

At the beginning of the Fall 2007 semester, Academic Senate President Fred Hochstaedter made an impassioned plea at flex day and through All Users e-mail for faculty members to join him in a committee to articulate the meaning and value of SLOs at MPC. Only one full-time faculty member, Robynn Smith from Creative Arts, agreed to join him. Together they formed the SLO Articulation Committee, an ad-hoc committee of the Academic Senate. This document is the result of their efforts and subsequent conversations in the Academic Senate.

At one of the first meetings, the SLO Articulation Committee agreed on several guiding principles:

- a. Belief in the general education community college system
- b. Belief in accreditation.
- c. Belief in professional teachers talking to each other about teaching.
- d. Belief in this committee producing a product.
- e. Recognition that one of the biggest problems on campus is that faculty don’t know what an SLO is and want examples of “acceptable” SLOs.

In early September, MPC President/Superintendent Doug Garrison attended a training session for accreditation site visit teams. We took advantage of this opportunity to ask the accrediting agency direct questions. In subsequent meetings with Dr. Garrison we agreed that dialogue rather than compliance is paramount. “The most important part of determining student learning outcomes is the faculty dialogue involved in examining the **designed** curriculum [college catalog and course outlines], the **taught** curriculum [course syllabi], and **learned** curriculum [direct and indirect assessment]. The focus should not be on compliance. It should be on faculty discussing curriculum and teaching. Since all disciplines are different, there is no one way to write an SLO,” (Garrison, 2007)

We also agreed that SLOs should never be used for the purposes of teacher evaluations. We asked the question, “*Are faculty evaluated based on SLOs?*” The answer from Doug Garrison is an emphatic “**NO**. The accrediting commission wants to see that the institution expects faculty members to engage in regular dialogue about degree, program, and course outcomes and that the results are used to improve the institution through its

curriculum and services. The faculty evaluation methods focus on individual performance as judged by peers on the basis of a self-evaluation, student evaluations, and classroom visitations. The institution is judged by the accrediting commission on whether there is evidence that the faculty engages in the review of outcomes and uses the results for institutional improvement,” (Garrison, 2007).

Also during fall 2007, the College Council approved release time for a faculty member to assume the role of “SLO Coordinator.” Six TLUs per year was approved for this position. This position is currently unfilled. The ASCCC emphasizes that successful implementation of SLOs is unlikely to be completed without the dedication of significant institutional resources, including release time for two SLO coordinators (ASCCC, 2007). See Appendix B for the SLO Coordinator job description as proposed by the SLO Articulation Committee.

## **Philosophy of SLOs for MPC**

We hope that SLOs can provide a formal framework for faculty to converse, as professionals, about teaching, learning, pedagogy, and curricula. Professional teachers talking to each other about teaching and student learning is a primary characteristic of a vibrant academic institution. We hope that the result of these conversations is more insightful pedagogy that improves student learning in MPC courses.

## **Definition of Instructional SLOs for MPC**

At the course level, an SLO is a measurable or evaluable description of what students are expected to be able to “do” as they successfully complete a course. The word “do,” in this context, could mean, for example, “perform,” “paint,” “use equipment safely and effectively,” “analyze,” “demonstrate,” “discriminate,” “synthesize,” “use the scientific method,” or any number of verbs appropriate for a particular course. Our definition of SLOs emphasizes student performance as a course is completed; it does not imply any standard of content retention or future abilities on the part of the student. Please see the “Tips for Writing SLOs” section for further information.

At the program level, an SLO is a measurable or evaluable description of what students are expected to be able to “do” as they successfully complete a program. A program is a sequence or group of courses that lead to something desirable, such as a certificate, degree, or proficiency in a discipline or subject area. Our definition of SLOs emphasizes student performance as a program is completed; it does not imply any standard of content retention or future abilities on the part of the student. In some cases, the program SLOs may simply be a list of the course SLOs that comprise the program. In other cases, the sequence or group of courses are designed to achieve something broader in scope than the sum of the parts. In this case, the program SLOs may be broader and more integrating than the individual course SLOs. Please see the “Tips for Writing SLOs” section for further information.

Development of SLOs for MPC courses and programs is the sole right and responsibility of MPC faculty members, as are the methods of evaluation of student attainment of the SLOs. Evaluation of student attainment of the SLOs may be quantitative and/or qualitative, and may be part of student evaluation methods currently in place for a given

course or courses. The ASCCC stresses the primacy of faculty in defining SLOs and their assessment, “It is up to faculty to create and assess outcomes (utilizing both quantitative and qualitative measures) and to analyze that evidence to improve student learning and teaching,” (ASCCC, 2007).

WASC and ACCJC purposefully decline to define SLOs for academic institutions. They favor individual institutions defining the meaning and value of SLOs for themselves. They believe that the conversations about the expected changes in student abilities as students take courses and complete programs is perhaps the most vital sign of a vibrant academic institution. Nevertheless, WASC does train faculty and administrators that serve on site-visit evaluation teams. In the training materials for these teams they provide the following guidelines, “As team evaluators look for evidence that the institution is evaluating student learning outcomes, they will want to think about the **designed** curriculum, the **taught** curriculum, and the **learned** curriculum, bearing in mind that grades are not the best evidence of student learning. The designed curriculum is what is in the college catalog and in official course outlines of record. The taught curriculum can be found in the course syllabi. The learned curriculum is what assessment is all about— what have the students learned?”

SLOs describe the **learned** curriculum. They focus on what the student should be able to “do” as they successfully complete a course. We interpret the statement “grades are not the best evidence of student learning” to mean that grades do not directly describe what students have learned. They may be an indication of how well students have achieved, on average, the objectives listed on the course outline, but they do not directly describe what the student must demonstrate they are able to do to successfully complete the course or program. The rubric that the ACCJC visiting team will use to evaluate our progress in SLOs is reproduced in Appendix A

## Are SLOs Different from Objectives?

**It depends on the definition of the word “objective”.**

Student learning outcomes build upon, but are different from, course objectives because they represent an over-arching description of what a student can *do* at the end of a course.

From a chemistry teacher quoted by Janet Fulks: “Outcomes demonstrate an understanding and application of a subject beyond the nuts and bolts which hold it together; objectives represent the nuts and bolts.”

<b>Objectives</b>	<b>Student Learning Outcomes</b>
Objectives represent valuable skills, tools, or content (nuts and bolts) that enable a student to engage a particular subject.	SLOs represent overarching products of the course.
Objectives can be stated in terms of higher level thinking skills	SLOs can be stated in terms of higher level thinking skills
Objectives can often be numerous, specific, and detailed.	SLOs are broad statements of what can be accomplished once the objectives are mastered.

Objectives are written in the course outline of record and comprise the individual parts that make up the whole of the class. The objectives are the “nuts and bolts” that hold the product together. The SLOs are the big picture vision of what that product looks like. Objectives describe the skills, tools, or content that a student will master by the end of a course. SLOs describe over-arching goals of what a student will be able to do by the end of a course. Objectives are the content of the course, whereas the SLOs describe what a student can do at the end of a course.

## Examples

### Nutrition course at Bakersfield College

Course Objectives – the specific teaching objectives detailing course content and activities.

- Review nutritional recommendations and components.
- Discuss differences in nutritional requirements associated with sex, age, and activity.
- Describe causes and consequences of nutritional problems.
- Explain complications of underlying physiologic conditions (e.g. diabetes & mal-absorption).  
Identify key factors involved in correcting nutritional behaviors.
- Describe resources and strategies to treat nutritional disorders.

Course SLO – the statement that describes what a student will do at the end of this nutrition course.

- Analyze a documented nutritional problem, determine a strategy to correct the problem, and write a draft nutritional policy addressing the broader scope of the problem.

### Geology course at MPC

Course Objectives

- Identify minerals based on physical properties of the minerals
- Identify rocks based on their textures and constituent mineralogy
- Interpret the shape of the shape of earth surfaces based on topographic contour lines
- Interpret tectonic processes based on the bathymetry of seafloor features
- Explain river morphology in terms of gradient, sediment load, and discharge
- Predict the flow of groundwater based on hydrologic parameters
- Predict three-dimensional distribution of rock types based on geologic maps

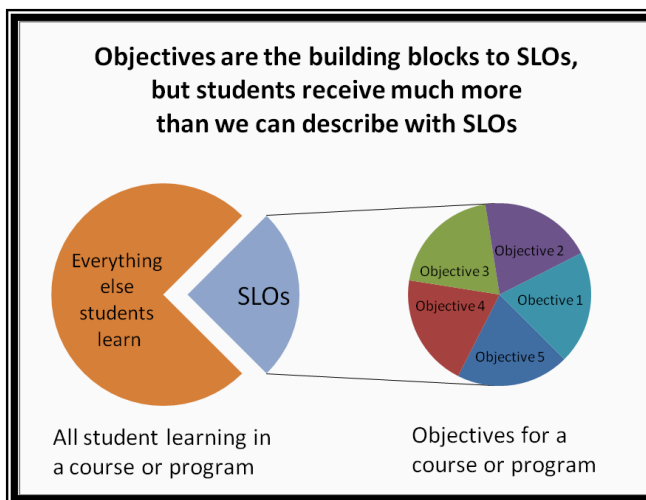
Course SLO

- Use observations of rock types and landscape morphology to interpret basic geologic history and processes.

## Tips for Writing SLOs

We honor the expertise, wisdom, and excellence of MPC faculty. Keep this in mind as you write SLOs for your courses and programs. You probably already do what the accrediting agency is asking us to do: explain to your students what you expect them to be able to do to successfully complete the course or program. Because you probably already evaluate your students' learned abilities as part of your grading scheme, you probably don't have to do anything really new on the course level. Write your course SLOs with this in mind. Take advantage of what you already do.

*Recognize that SLOs do not describe everything our students learn (see image at right). We do a lot more for students than cover the few themes we can describe in a few pithy sentences describing our SLOs. It may take years for some of our lessons to reach fruition and be appreciated. The image at right illustrates this concept for visual learners.*



*Employ the KISS principle (Keep It Simple Sweetheart). Write one to three SLOs per course. Remember, the eventual goal is to do some sort of evaluation of these SLOs in the future. It will be easier to assess a smaller number of SLOs.*

*Write your course SLOs with aspects of your current grading scheme in mind. Consider an assignment, type of assignment, capstone project, test, or theme of a test, which you currently use to assess certain aspects of student learning. Write your SLOs as an expectation of a student successfully meeting these standards. You will then assess your course SLO using assessment methods already in place for your course. A term paper, capstone project, or portion of a test that incorporates many of the ideas or skills involved in the course, would work well for this purpose.*

*Use active verbs that describe an activity, like “analyze”, “synthesize”, “perform”, “create”, “communicate”, or “use equipment safely and effectively”. These types of words imply that the students are using their new knowledge to “do” something. In this context, “think critically”, or “develop creative thoughts” fits under the definition of “doing” something.*

*Pair more nebulous verbs like “understand”, “show”, or “demonstrate”, with a more active verb as described above. Ask yourself the question, “How will the student demonstrate or show that they understand the material?” Incorporate your answer into the SLO.*

*Phrase your SLO in terms of what skills or thought processes the student is expected to demonstrate to complete the course successfully, rather than what the student will be able to “do” in the future. Whereas we expect students to have demonstrated these thought*

processes or skills if they are successful in the class, we do not know how our students will behave in the future, so learning outcomes should not contain future promises or guarantees.

Example: “Students will be able to recognize major seafloor features based on their shape and interpret their origin using plate tectonic theory.”

Better example: “Upon completion of the course/program students will have demonstrated the ability to recognize major seafloor features based on their shape and interpret their origin using plate tectonic theory.”

Alternative better example: “Recognize major seafloor features based on their shape and interpret their origin using plate tectonic theory.”

The first example could imply that the student will be able to do all of these things at all times in the future, which we may not want to promise. The better example stresses that the outcome is something that the successful student demonstrated at the time he or she completed the class. The alternative better example is stated in the simplest, most direct manner, without implying anything about the future. It also implicitly utilizes the MPC definition of an SLO as something a student does upon successful completion of a course or program, not an ability to do so in the future.

*How do I know when I'm done? Is my new SLO “good enough”?* We believe in the wisdom and expertise of our MPC faculty. When an MPC faculty member can honestly say to their discipline, their colleagues, and themselves, that the SLO accurately reflects what is expected of students for them to successfully exit a course or program, then the SLO is complete and “good enough”. Remember that the accrediting agency does not provide a definition of a high quality SLO. They leave these decisions up to the individual institutions (See Appendix A). Because we strongly believe in intellectual pluralism, and because our instructional programs are so diverse, we advocate leaving the decision of adequacy of SLOs to our faculty, either as individuals or as teams working together.

*Remember that this is a fluid process and that SLOs are designed to be revised.* Don't waste time striving for perfection. Write something down, try it out for a few semesters, and then revise it so that it more succinctly fits your needs.

*Remember that assessment of SLOs can be qualitative and/ or quantitative.* The ACCJC, in the training materials they provide accreditation site-visit teams, list the “most common examples of direct measures of competencies or attainment levels reached by students.”

They include:

- “Capstone experiences (research papers, ways that demonstrate attitudes and values, case studies)
- Classroom assessment techniques
- Dance and music productions
- Evaluation by employers
- Exit exams and interviews
- Faculty-developed rubrics for scoring student work

Licensure information  
Locally developed test results  
Paintings, drawings, articles, computer programs  
Portfolios (student work that is collected and reviewed for evidence of learning and development)  
Practicum and internship evaluations  
Standardized test results”

*Think about Program SLOs.* First decide whether the Program SLOs should be a list of the underlying course SLOs or whether the program builds towards a broader theme that is greater than the sum of the parts. If the program builds towards a broad theme, try to define the over-arching product in terms of what the student should be able to do upon completion. If the program is simply a group of courses, such as some of our Transfer Studies emphases, then the program SLOs might most appropriately be a restatement of the course SLOs. For example, the Oceanography Program consists of one oceanography course, two chemistry courses, two math courses, and two physics courses. The math, chemistry and physics courses support many programs and their course content does not specifically involve oceanography. Thus, the course SLOs could most reasonably be a list of the individual course SLOs. Alternatively, the Nursing Program consists of a carefully constructed sequence of courses that build towards the grand product of students acquiring the skills required of nurses. The Nursing program SLOs could represent skills and abilities that were attained in the program and describe the skills required to be a competent nurse. Thus, the Nursing Program SLOs would be wider ranging and broader than the Oceanography Program SLOs.

*GE course SLOs should support and align with GE program SLOs.* If your course is part of the general education program, then the SLOs for your course should support the general education program SLOs. The course SLOs should have either the same language or language that is similar enough that it is easily connected to the GE SLOs. GE program SLOs are listed in the MPC catalog.

*Do SLOs refer to what the A-student ought to be able to do or what the C-student ought to be able to do?* Write your SLOs broadly enough so that you have room to evaluate how well the student has achieved the outcomes. Most of the SLO examples on the following pages leave plenty of room to evaluate *how well* the student has achieved the outcomes. Evaluating student ability is something we already do as teachers.

## Examples

For MPC, we recommend one to three SLOs per course. If you write more than three, you're probably writing objectives rather than SLOs.

### Examples from our courses:

Geology: Use observations of rock types and landscape morphology to interpret basic geologic history and processes.

Oceanography: Recognize major seafloor features based on their shape and interpret their origin using plate tectonic theory.

Oceanography: Analyze how the earth's oceans are a part of the earth's systems from geological, chemical, biological and physical perspectives. (I found this one while looking for internet examples)

Painting: Students will use appropriate tools and materials to create paintings that demonstrate the synthesis of image, process and content

### Examples found on the internet:

Biology: Apply concepts of chemistry to physiological systems.

History: Evaluate historical myths, clichés, and prejudices that permeate contemporary US culture.

Criminal Justice: Describe the principles of community-based policing and apply them to given situations.

Speech: Organize outline, and deliver well-researched speeches to inform and persuade that are tailored to a specific audience.

Photography: Manually operate a 35 mm camera to create original black and white photographs that apply principles of exposure and development to concepts of composition, design, aesthetics, and content.

Piano: Sit at the keyboard so that the body will rest on it frame in such a way to be able to use one's hands, arms, and fingers to produce a beautiful tone with great speed and evenness.

Nutrition: Analyze a documented nutritional problem, determine a strategy to correct the problem, and write a draft nutritional policy addressing the broader scope of the problem.

Engineering: Functioning as a member of a team, the student will design and present a concrete structure which complies with engineering standards.

Math: Given data students will analyze information and create a graph that is correctly titled and labeled, appropriately designed, and accurately emphasizes the most important data content.

## **Additional Resources**

Several California community colleges have elaborate web pages providing guidelines to their faculty in their efforts to develop SLOs for their courses and programs. You may find them useful for your purposes as well.

### **Modesto Junior College**

Main SLO page: <http://www.virtual2.yosemite.cc.ca.us/slo/>

Guidelines for developing SLOs:

<http://www.virtual2.yosemite.cc.ca.us/slo/Docs/ApprovedDocuments/Princ%20Phil%20on%20SLOs%20at%20MJC.pdf>

### **Cabrillo College**

<http://pro.cabrillo.edu/slos/index.html>

### **Santa Monica College**

[http://academicsenate.smc.edu/curriculum/student\\_learning\\_outcomes.htm](http://academicsenate.smc.edu/curriculum/student_learning_outcomes.htm)

### **Bakersfield College**

[http://online.bakersfieldcollege.edu/courseassessment/Section\\_3\\_SLOs/Section3\\_2SLOdefined.htm](http://online.bakersfieldcollege.edu/courseassessment/Section_3_SLOs/Section3_2SLOdefined.htm)

### **Grossmont College**

[http://www.grossmont.edu/student\\_learning\\_outcomes/writing\\_slos.asp](http://www.grossmont.edu/student_learning_outcomes/writing_slos.asp)

### **Santa Rosa Junior College**

<http://www.santarosa.edu/projectlearn/>

### **College of the Sequoias**

[http://www.cos.edu/view\\_page.asp?nodeid=4185&parentid=3138&moduleid=5](http://www.cos.edu/view_page.asp?nodeid=4185&parentid=3138&moduleid=5)

### **Fresno City College**

<http://online.fresnocitycollege.edu/senate/curriculum/slo.html>

### **University of Washington**

<http://depts.washington.edu/grading/slo/>

## **Most important thing to remember**

If we don't write SLOs for our courses and programs, somebody else—like the federal government—will. And that would be everybody's worst nightmare.

## Recommendations

Not everything that counts can be counted, and not everything that can be counted counts.

--Albert Einstein

**Define SLOs as abilities that students can demonstrate upon successful completion of MPC courses or programs.** This definition emphasizes specific, faculty-developed expectations of skills and abilities, but does not imply anything about retention or future abilities.

**Appoint a pair of SLO Coordinators to guide and facilitate faculty development of SLOs at the course and program level.** We recommend that these individuals play an integral role on the accreditation self-study committee. Our rationale is that our accreditation standards are completely based on SLOs. The committee writing the self-study will need SLO expertise to complete their task. To assure continued accreditation, we recommend 100% release time to be split between these individuals. A proposed job description is provided as Appendix B.

**Create an SLO Steering Committee so that the SLO Coordinators do not work in isolation or are solely responsible for the many important decisions that must be made.** Possible representation on this steering committee includes:

- Academic Senate President
- MPCTA President
- CAC Chair
- ASAG representative
- SSAG faculty representative
- Academic Affairs representative
- Director of Institutional Research

**The SLO Coordinators, in consultation with the SLO Steering Committee, should provide guidelines for the assessment of student attainment of SLOs.** We recommend keeping things as simple as possible. At the course level, assessment tools and techniques currently in place for MPC courses should be utilized to assess student success. At the program level, the SLO coordinator should determine if suitable practices exist at other campuses and provide guidelines for assessment processes at MPC. We do not want to reinvent the wheel, or the flat tire.

**Adequate institutional support must be provided to assure the success of the SLO effort at MPC.** Support may include efforts from Institutional Research, clerical assistance in recording and storing SLO data, and/or funds for SLO training at conferences and workshops.

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## Appendix A

### Accrediting Commission for Community and Junior Colleges Western Association of Schools and Colleges

#### Rubric for Evaluating Institutional Effectiveness – Part III: Student Learning Outcomes

(See attached instructions on how to use this rubric.)

<b>Levels of Implementation</b>	<b>Characteristics of Institutional Effectiveness in Student Learning Outcomes</b> <i>(Sample institutional behaviors)</i>
<b>Awareness</b>	<ul style="list-style-type: none"> <li>• There is preliminary, investigative dialogue about student learning outcomes.</li> <li>• There is recognition of existing practices such as course objectives and how they relate to student learning outcomes.</li> <li>• There is exploration of models, definitions, and issues taking place by a few people.</li> <li>• Pilot projects and efforts may be in progress.</li> <li>• The college has discussed whether to define student learning outcomes at the level of some courses or programs or degrees; where to begin.</li> </ul>
<b>Development</b>	<ul style="list-style-type: none"> <li>• College has established an institutional framework for definition of student learning outcomes (where to start), how to extend, and timeline.</li> <li>• College has established authentic assessment strategies for assessing student learning outcomes as appropriate to intended course, program, and degree learning outcomes.</li> <li>• Existing organizational structures (e.g. Senate, Curriculum Committee) are supporting strategies for student learning outcomes definition and assessment.</li> <li>• Leadership groups (e.g. Academic Senate and administration), have accepted responsibility for student learning outcomes implementation.</li> <li>• Appropriate resources are being allocated to support student learning outcomes and assessment.</li> <li>• Faculty and staff are fully engaged in student learning outcomes development.</li> </ul>
<b>Proficiency</b>	<ul style="list-style-type: none"> <li>• Student learning outcomes and authentic assessment are in place for courses, programs and degrees.</li> <li>• Results of assessment are being used for improvement and further alignment of institution-wide practices.</li> <li>• There is widespread institutional dialogue about the results.</li> <li>• Decision-making includes dialogue on the results of assessment and is purposefully directed toward improving student learning.</li> <li>• Appropriate resources continue to be allocated and fine-tuned.</li> <li>• Comprehensive assessment reports exist and are completed on a regular basis.</li> <li>• Course student learning outcomes are aligned with degree student learning outcomes.</li> <li>• Students demonstrate awareness of goals and purposes of courses and programs in which they are enrolled.</li> </ul>
<b>Sustainable Continuous Quality Improvement</b>	<ul style="list-style-type: none"> <li>• Student learning outcomes and assessment are ongoing, systematic and used for continuous quality improvement.</li> <li>• Dialogue about student learning is ongoing, pervasive and robust.</li> <li>• Evaluation and fine-tuning of organizational structures to support student learning is ongoing.</li> <li>• Student learning improvement is a visible priority in all practices and structures across the college.</li> <li>• Learning outcomes are specifically linked to program reviews.</li> </ul>

## Appendix B

**Monterey Peninsula College  
Faculty SLO Coordinators  
Job Description  
Approved by the Academic Senate, November 29, 2007**

### Job Summary

Two SLO Coordinators will guide efforts to develop, implement, and assess\* Student Learning Outcomes (SLOs) for faculty-based activities at Monterey Peninsula College. The SLO Coordinators will serve for three years in staggered terms. The SLO Coordinators will report to the Academic Senate regarding issues that pertain to academic and professional matters and to the VP of Academic Affairs/Accreditation Liaison Officer (ALO) regarding issues that pertain to accreditation or resource allocation.

The following job description is based on the ASCCC (Academic Senate for California Community Colleges) document, *Agents of Change: Examining the Role of Student Learning Outcomes and Assessment Coordinators in California Community Colleges*, retrievable as of 10/07 at:

[http://www.asccc.org/Events/sessions/fall2007/materials/AppendixA\\_F07.doc](http://www.asccc.org/Events/sessions/fall2007/materials/AppendixA_F07.doc)

### Job Responsibilities

**Use the SLO framework to facilitate dialog among MPC faculty about teaching, student learning, and the improvement of student learning**

- Motivate faculty to participate in the SLO dialog
- Use the results of this dialog to continue to refine MPC's SLO philosophy
- Disseminate SLO information and resources to MPC faculty
- Develop and present SLO-related content at flex days and other faculty development opportunities throughout the year
- Provide concrete, real-world examples to MPC faculty of how SLOs have improved student learning
- Create a collection of SLOs from a variety of disciplines for faculty to use as models.
- Collect and incorporate input and expertise from MPC faculty and work closely with the Director of Institutional Research to determine:
  - The most appropriate way to store and disseminate SLO data
  - How to prioritize which programs to work on first.
  - How to incorporate SLOs and SLO assessment\* into program development and/or program review process
- Maintain an SLO presence on the MPC website

**Remain informed in the field of SLOs and SLO assessment and disseminate this knowledge to faculty as needed**

- Attend the ASCCC SLO Institute and other appropriate conferences and workshops
- Envision future needs for MPC to respond to accreditation standards pertaining to SLOs
- Suggest changes to this job description as MPC implements its SLO strategies
- Act vigilantly to prevent system-wide assessment at all levels of college instruction

**Develop a plan for the assessment of student attainment of SLOs at MPC**

➤ **At the course level:**

- Create a collection of assessment models from a variety of disciplines for faculty to use as ideas, or examples
- Consider the recommendation of the SLO Articulation Committee that course SLO evaluation do not require any additional assessment tools or techniques not already employed by MPC faculty in their individual classes (Keep It Simple, Sweetheart).
- Create a collection of evaluation rubrics from a variety of disciplines for faculty to use as models if they so desire
- Serve as a resource for faculty as they develop plans to assess student attainment of SLOs
- Ensure that a reasonable proportion of course SLOs are aligned with program SLOs, including General Education and student services, and serve to collectively improve instruction and learning at MPC

➤ **At the program level:**

- Work with MPC faculty to develop a set of guidelines for program SLO assessment that preserves faculty autonomy to develop assessment plans appropriate for their disciplines.
- Present the program SLO assessment guidelines for approval at the Academic Senate and other shared governance bodies as appropriate
- Create a collection of assessment models from a variety of disciplines for faculty to use as examples
- Work closely with the Director of Institutional Research to incorporate institutional support and research methodologies in the assessment of program SLOs
- Develop a pilot program to assess SLOs for a few programs

**Co-Chair the MPC SLO Steering Committee\*\***

- Lead the committee to further refine the SLO philosophy, direction, and processes at MPC
- Serve as liaison between faculty-based and non-faculty-based areas of MPC as SLOs and their assessment are developed
- Make presentations to the board about SLO issues and progress
- Write and present annual reports, as is done by the Academic Senate and College Council

### **Play an integral role on the accreditation self-study steering committee**

- Participate in writing the accreditation self-study where SLOs are the main topic
- Assist committee members in the writing of the self-study where SLOs are pertinent.
- Communicate MPC's SLO philosophy to the accreditation visiting team in 2009-2010.

## **Qualifications**

### **1. Knowledge. Successful SLO Coordinators will possess or be willing to obtain knowledge in the following areas:**

- Accreditation Standards
- The etiology of SLOs and the academic social and political forces that have resulted in the incorporation of SLOs in accreditation standards
- Characteristics of a high-quality SLO
- Real, documented, down-to-earth ways in which the writing and assessment of SLOs can improve student learning at the course and program level
- Assessment strategies
- Familiarity with MPC culture, including
  - The curriculum approval process
  - The program review process
- Familiarity with the diversity of MPC's student population, especially the unusually high proportion of life-long learners

### **2. Abilities. Successful SLO coordinators will be able to**

- Lead a somewhat reluctant faculty in this mandated endeavor
- Encourage dialog about teaching and student learning within the SLO framework
- Motivate faculty participation in the dialog
- Chair an SLO steering committee
- Facilitate groups of various sizes
- Plan future directions of SLO efforts at MPC
- Collaborate and work well with others on this project
- Analyze data and provide leadership on how to analyze data
- Train or teach others on this complex process
- Successfully organize a complex campus initiative
- Willingness to serve for 3 years

### **3. Stature**

- A full-time tenured faculty member or equivalent is preferred.

## **Selection Procedures**

The Academic Senate will develop and implement a selection procedure and then make a recommendation to the President/Superintendent, who will make the appointment.

## **Evaluation**

The Academic Senate will develop evaluation process and criteria. The administration will approve the process and criteria and administrate the evaluation.

## Desired Outcomes

The MPC faculty engages in substantive dialog about teaching and student learning within the SLO framework.

SLOs at the course, program, and institutional levels are developed and documented.

A plan for assessment of SLOs, which retains faculty autonomy, at the course and program levels is developed and passed through the appropriate shared governance processes.

A pilot program for assessing SLOs is initiated.

## Compensation

These individuals will receive a total of *100%* release time split between them to perform these duties. This level of release time is *especially* important during accreditation years. Adequate levels of institutional support are emphasized by the ASCCC as essential to adequately cover the breadth of accreditation requirements.

\*Throughout this document, the terms “assess”, “assessment” or “assessment of SLOs” refers to the assessment of student attainment of SLOs. It specifically does not refer to evaluation of the assessment tools chosen to assess student performance.

\*\*SLO Steering Committee:

The purpose of this committee would be to continue to gain consensus among diverse constituencies about the philosophy, direction, and processes that MPC uses to attain the SLO-related standards set forth by our accrediting agency.

Representation:

- Academic Senate President, or designee
- CAC Chair, or designee
- MPCTA President, or designee
- AAAG representative
- Faculty member from Student Services
- Representative from Administrative Services
- Administrator from Academic Affairs
- Director of Institutional Research