Creating a Plan for Assessment of Student Learning (PASL) for Southwest Minnesota State University*

This document is a general guide for developing the components of a ***Plan for Assessment of Student Learning (PASL).*** The guidelines are intended to help you and your program/department plan, organize, track, and report your assessment work. Developing and implementing a good plan will strengthen program quality and enhance the five-year program self-study. In addition, a well-developed PASL ensures consistency with expectations of our national accrediting agency, the Higher Learning Commission: A Commission of the North Central Association.

The **Plan for Assessment of Student Learning** includes the following documents:
- Student **Learning Goals**
- Student **Learning Outcomes**
- **Course Map**
- **Assessment Plan and Schedule**

The steps to produce a PASL are:
1. Establish student learning ***goals (i.e., the learning intended)***
2. Generate student learning ***outcomes*** connected to the goals ***(i.e., how much students actually learn).***
3. Produce a ***course map*** to show where outcomes are taught within the curriculum
4. Create a ***schedule*** of when outcomes will be assessed
5. ***Document*** assessment results, responses to results, and program enhancements

Each step in this process is described in more detail below. Additional resources including several example plans are available from the Committee on Institutional Assessment (CIA).

Step 1: Goals

A good assessment plan begins with developing appropriate student learning goals. Goals can be very broad, but they should identify what you expect students to learn, understand, or appreciate as a result of their studies. The following guidelines may help you develop goals.

i. Goals should reflect what you want your majors to leave knowing and being able to do. **Focus on developing four to six goals** for your major; having more than six goals makes assessment more difficult and unmanageable.

ii. Take this opportunity to review your curriculum. Do your program/department's existing goals need to be refined, redefined, or expanded?

iii. Your program's goals (and outcomes) should be directed towards your *majors*. You may have goals/outcomes that apply to all students taking your courses but in this situation, the goals/outcomes are for your majors.

iv. Your program's goals should align with the student learning outcomes of the Liberal Education Program (LEP) as much as possible. LEP-related goals may include the

following: Our students will be…… effective communicators, problem-solvers, competent in the discipline, technologically proficient, and critical thinkers.

v. National organizations in your field may already suggest goals and outcomes for undergraduate curricula. In addition, you might search the websites of departments at similar schools or contact colleagues elsewhere. Do not reinvent the wheel if you are happy with goals/outcomes others are using/recommending.

Step 2: Outcomes

Your goals must be translated into student learning outcomes (SLOs). Outcomes represent how much students actually learn, the specific abilities, knowledge, and attitudes you actually assess, therefore *they must be measureable in some way*. The learning outcomes must be written so they specify actions, behaviors, or products that can be observed and measured. An example of a student learning outcome is: **students will be able to prepare and deliver** a high quality presentation on an area within the discipline.

The following are suggestions to guide you as you develop your student learning outcomes.

a) Focus on things you would actually like to know about and that will strengthen your program.
b) Outcomes should be both meaningful and manageable (i.e., can be assessed effectively to improve or enhance your program).
c) Outcomes should describe what your students should be able to demonstrate, represent, or produce based on their learning experiences.
d) Use active verbs such as *create, apply, construct, translate, identify, hypothesize, and describe*, when identifying what students should be able to demonstrate, represent or produce over time.
e) Outcomes need to be clearly aligned with your program goals. As a general rule-of-thumb, plan for one to two outcomes per goal. Thus, with six goals, you would have 12 outcomes. More than 12 outcomes will make assessment more difficult.
f) Think about current practices and what you already do in courses that may be used for assessment.
g) Consider carefully what you can do in terms of assessing various outcomes – think about outcomes in terms of whether you want to assess them, whether you can assess them, and how you will assess them.

Step 3: Course Map

Create a course map that identifies the degree to which particular courses emphasize outcomes for your major. For example, where in the curriculum will students develop and/or apply the skill or knowledge you want them to display? Completing this step may help you plan how and where to assess particular outcomes. Not every course will meet every goal or outcome, however, your curriculum as a whole must address each goal and outcome.

Step 4: Assessment Plan

Remember that who, when, and how you assess should follow from what you want to know. In other words, make sure your assessment will provide the information you want. Things to keep in mind:

a) **Who & What**
   a. Remember that you want to assess as many majors as possible but you do not have to assess every student in every class every year.
   b. You do not need to assess every goal every year, hence the assessment plan. Record keeping and organization are critical in terms of a plan.
b) **Types of assessment**
   a. Direct assessments are preferred over indirect assessments. Direct assessments examine student "products" as reflecting learning whereas indirect assessments ask students about their learning. Indirect assessments can be very useful but you should assess every outcome with a direct measure.
   b. Assessment needs to be focused. Course grades and, typically, exam grades are too broad to assess a good objective. However, particular assignments or exam questions may be just what you need. Using course assignments is referred to as course embedded assessment.
   c. It is helpful to identify instruments and methods for assessing student achievement for each learning objective. Some possibilities include: exam questions, essays, journals, case studies, simulations, internships, written assignments, portfolios, presentations, capstone or other projects, surveys (students, alumni, or employers), interviews, focus groups.
   d. Standardized assessments such as nationally normed tests (e.g., ETS exams) or department level assessments (e.g., faculty teaching different sections of the same course including the same question on a final exam) can be helpful but are certainly not necessary. Course content may differ across sections or the same outcome will be assessed in different courses so your assessment procedures may vary but all of the procedures require that students demonstrate the same skill (e.g., apply a theory to understand a particular type of social problem). An important, easy way to standardize is to develop an agreed upon rubric for faculty to use in evaluating a paper or presentation (note: the rubric is only for the purposes of assessing learning outcomes and does not need to change or impact faculty grading systems/policies).
   e. Formative assessment (e.g., assessments mid-semester or midway through a curriculum) provides valuable information. You want to balance formative assessment, however, with summative assessment. The latter asks the question, at the end of the course (or learning experiences), will students be able to demonstrate what we want?
c) **Planning**
   a. Think about what you already do (e.g., types of assignments, in-class activities) and consider ways to use those activities or parts of them rather than trying to construct a whole new apparatus for assessment.
   b. Be mindful of workload for faculty. Do not put all the assessments in places where only a few faculty will be responsible for the work.

    c. Generate an assessment plan that includes as much of the following information as possible

- *Time table for assessment*. You should be assessing the outcomes associated with several goals each year. Think about a complete assessment cycle (all goals assessed) every 3-5 years depending on the number of goals. Keep in mind that we must show the HLC that we are using assessment results, thus doing more than several goals each year would likely be overwhelming for program faculty.
- Other things that can be included in the Plan are:
  - Where will the assessment of a particular outcome be done (e.g., what course or courses)?
  - What student work will be evaluated (e.g., final paper) to assess each outcome?
  - How will the assessment be conducted (e.g., rubric to be used)?
  - Criterion for Success. How will you know if students perform at a satisfactory level? In other words, how will you determine if students have learned it or not. For example, if 70% of students can do some task, is that sufficient?

Step 5: Documenting Assessment

 Implement your plan by collecting the data and reflecting on or evaluating the assessment results. What do they tell you about your success with respect to what is being assessed? If the results are satisfactory, good, or great, celebrate that and consider ways to reinforce that success. If the results fail to reach your stated goal, articulate how you will respond in terms of changes you will make to help reach your goal (e.g., changes to courses, assignments, or curriculum). It is critical that you "close the loop" by explicitly stating plans in response to assessment results! Additionally, you may find that the assessment process yields ideas for changing aspects of your assessment plan or strategies.

Finally, yearly assessment data collected by a program should be included in each Department's Annual Report. These data are also essential for your program's five-year self study.

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*Maki, P.L. 2002. *Developing an Assessment Plan to Learn about Student Learning*. Journal of Academic Librarianship 28(1):8-13.

*Format derived, with permission, from Maurice Levesque, Associate Dean, Elon University, Oct. 2011, 'Creating a Plan for Student Learning Assessment'.

Revised January 30, 2012

Biology Program Goals and Student Learning Outcomes

Goal 1. To achieve scientific competency in diverse biological topics
- **Student Learning Outcome 1.1**
  - ❖ Articulate core concepts and principles related to cell theory, genetic inheritance, evolution, and ecology.

Goal 2. To understand and apply the scientific method.
- **Student Learning Outcome 2.1**
  - ❖ Apply the scientific method in laboratory or field situations, including competency in: observation skills, hypothesis formulation, experimental design, use of proper controls.

Goal 3. To develop critical thinking skills and problem-solving techniques.
- **Student Learning Outcome 3.1**
  - ❖ Demonstrate competence in data analysis, including the preparation and interpretation of graphs and tables.

Goal 4. To find, evaluate, and communicate biological information.
- **Student Learning Outcome 4.1**
  - ❖ Communicate experimental findings or data interpretations both orally and in writing including:
    - ▪ Demonstrating proper use of binomial nomenclature
    - ▪ Use of appropriate scientific format with appropriate citations
- **Student Learning Outcome 4.2**
  - ❖ Effectively use information-gathering techniques in scientific inquiry.

Goal 5. To improve students' understanding and appreciation of current biological issues and their relevance to society and the environment.
- **Student Learning Outcome 5.1**
  - ❖ Use scientific evidence to evaluate biological and societal issues.

Goal 6. To appreciate the central role of evolution in the unity and diversity of life.
- **Student Learning Outcome 6.1.**
  - ❖ Demonstrate knowledge of how mutation and selective pressures drive the process of evolution.

sample…….Course map for the B.A. in BIOLOGY…….sample

Biology Student Learning Outcomes (SLOs)	Bio 200	Bio 287	Bio 301	Bio 302	Bio 311	Bio 321	Bio 487	300-level electives	Requirements in related fields (math, physics, chemistry)
SLO 1.1: demonstrate understanding of scientific content	I		R					A	
SLO 2.1: apply scientific method in lab/field expers	I						A		
SLO 3.1: demonstrate competence in data analysis	I								
SLO 4.1: communicate results or data interpretations in oral & written form.									
SLO 4.2: Efficiently use info-gathering techniques in scientific inquiry									
SLO 5.1: evaluate societal issues from natural science perspective									
SLO 5.2: Critically evaluate biological issues									
SLO 6.1: demonstrate knowledge of mutation & selection in driving evolution									

Competency: I=Introduced (exposure to general concepts)

R=Reinforced (moderate emphasis and iteration of concepts)

A= Advanced (command or mastery)

**Format derived from the following sources: Maki, P.L. and Levesque, M.

Plan for Assessment of Student Learning (PASL)

Program Assessment Plan and Timetable, 2011-2016

Sample A**

Program Goals	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Goal 1 SLO 1.1	Core course A				
Goal 2 SLO 2.1		Core course B	capstone		
Goal 3 SLO 3.1		Core course C			

Goal 4
   SLO 4.1
   SLO 4.2
			Capstone (SLO 4.1)		

Goal 5
   SLO 5.1
   SLO 5.2
	300-elective courses				

Goal 6 SLO 6.1			capstone		

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Program Assessment Plan and Timetable, 2011-2016

Sample B**

Educational Experiences: Courses in the major	SLOs addressed by course	Assessment Methods	Timeline	Responsibilities	How will data be used?
Bio. 200	2.1, 3.1, 3.2	Regular course exams, graded homework assignments, pre- and post-tests,	2012-2013	Assign bio faculty member	Data reviewed annually by program for action
Bio 301	1.1, 4.1,		2013-2014	Assign bio faculty member	
Bio 302	5.1 ,6.1		2014-2015	Assign bio faculty member	

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Program Assessment Plan and Timetable, 2011-2016

Sample C**

Goals and Student Learning Outcomes	SLOs addressed by course	Assessment Methods	Timeline	Responsibilities	How will data be used?
Goal 1 SLO 1.1	Bio 301, 302	Regular course exams, graded homework assignments, pre- and post-tests,	2012-2013	Assign bio faculty member	Data will be reviewed by program for action.
Goal 2 SLO 2.1 SLO 2.2	Bio 200		2013-2014	Assign bio faculty member	
Goal 3 SLO 3.1 SLO 3.2	Bio. 200, 301, 302, 287		2014-2015	Assign bio faculty member	

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