Student Learning Outcomes and Their Assessment:
A Handbook for the development and measurement of SLOs at Mission College

Created by the SLO Taskforce under the guidance of the Office of Instruction, 2014
This handbook was developed to assist departments and their faculty in the creation of observable, measureable Student Learning Outcomes (SLOs). The goal is to clarify the process of SLO creation and assessment, such that all departments successfully implement a process for assessing student learning. If any questions are left unanswered, feel free to contact a member of the SLO Taskforce for clarification.

What are SLOs?
Student Learning Outcomes point to the desired knowledge gained and skills acquired or enhanced as a result of the course.

SLOs are specific observable and measurable results that are expected of the students’ abilities upon completion of a course. They describe a student’s ability and skills using higher level thinking and ability to produce something that requires application of what has been learned.

What SLOs are not is a list of activities, nor do they focus on the minutiae. SLOs are overarching descriptions of course content. Poorly written SLOs are hard to assess. The emphasis should be on what students can do with what they have learned by producing something that allows the students to apply the knowledge and skills they have gained through the course.

SLOs also give students a better understanding of what is expected of them in the course from the beginning. The 2002 ACCJC Accreditation Standards state that “in every class section, students receive a course syllabus that specifies learning objectives consistent with those in the institutional officially approved course outlines.” When the expectations are clear to both instructors and students, there is a better chance of successful acquisition of skills and knowledge.

Why should departments care about Student Learning Outcomes?
For the past few decades, institutions of higher learning across the country have come to the understanding that a full commitment to teaching must include assessing what and how much students are learning, and using this information to improve the education experiences being offered. These institutions have realized that covering material does not guarantee that the students are learning it, and thus established SLOs to better assess the quality of the education provided.

SLOs and their assessment are not the end goal but agents of educational improvement – the point isn’t to just collect data, check a box in the Program Review and move on, it is to provide departments with meaningful data that departments analyze to improve student learning.

Ultimately, SLOs and their assessment will
• Help faculty determine what is and what is not working in their courses or programs. Positive assessment results can and should be used to promote successes, market programs and departments, and motivate faculty. Less than satisfactory
assessment results should provide an opportunity for faculty to analyze results and identify improvements to courses and campus services.

- Provide powerful evidence to justify needed resources to maintain programs or demonstrate a need for funding of projects that will boost student learning.

- Produce useful discussion among faculty who share the responsibility of a sequence of courses. Instructors of courses that are next in the progression can be assured that students have learned the necessary content knowledge.

- Provide reassurance that all faculty are teaching to the same standard of expectation, that all students have the same core knowledge base upon completion of a course regardless of which instructor was in the classroom.

- Help professors prioritize what material is most beneficial to achieving the course outcomes.

- Demonstrate to the public the value of the college as a source of a quality education.

Is this more work for instructors?
Not necessarily if the outcomes and the assessment instruments are based on the current course requirements and activities. It will entail a little more record keeping in some cases, but not to an extent that it will be onerous.

Is this just another pedagogical fad?
No. Assessment has been around for quite some time, and all accreditation agencies for higher education in the U.S. now state that the assessment of learning outcomes is a priority criterion when evaluating college or university.

Is it just standardized testing that will interfere with academic freedom?
No. Each department will decide the best manner to measure the outcomes established by the department for each course. Consistency in measurement does not automatically lead to standardization. Faculty will not be encouraged to "teach to the test".

Likewise, uniformity of assessment does not interfere with the academic freedom of professors. What is expected is that the same SLOs will be assessed across sections and over the semesters in a consistent manner. The department faculty should come together to decide the best way to measure each SLO and the instructing faculty then will incorporate that measurement instrument into the sections in a manner that best fits the course structure as taught by each faculty member. In this way the assessment will be a natural part of the course, rather than an intrusion into the learning environment.
Developing Student Learning Outcomes

All faculty members who is or might be teaching a course should ideally participate in the development of both the SLOs and the assessment instrument. Their participation makes the assessment process smoother and consistent.

If having a difficulty in discerning a course's outcomes, look to the course's current assignments and ask, What knowledge or skill must be applied by students in order to complete this assignment? Articulate that knowledge or skill in the form of “Students will be able to…” and an SLO is created.

What makes for a good SLO?
The SLOs should focus on what learning will result from the course, rather than be lists of activities or topics. They involve complete sentences with ‘active’ verbs – see Appendix A for language to consider and to avoid – and with terms that could be understood by the public as the basic expectation of what students should achieve as a result of the course.

Most importantly, SLOs must be measurable. That is the problem with SLOs that start with “Students will understand…”: ‘understanding’ is not easily measurable, rather the application of that understanding is.

As an exercise, compare the following two examples of Student Learning Outcomes; which one makes for a better SLO?

| Students will appreciate music from other cultures. | Students will identify the characteristics of music from other cultures. |

The nebulous nature of ‘appreciation’ makes it difficult to measure, thus the first SLO is not ideal. When writing an SLO, always keep in mind what could be observed by the professor and directly measured as part of the assessment process; this will facilitate avoiding the more abstract wording of SLOs.

Simple guidelines
• Avoid vagueness in the wording. Any vagueness leads to inconsistency among instructors in their approach to measuring the outcome.

• Focus on what the students will be able to do as a result of taking that course, not on what will be taught.

• Avoid outcomes that are particular to a specific style of instruction.
• Focus on what everyone who teaches the course agrees are the most important aspects of the course.

• Avoid those outcomes that seem important, but involve concepts that cannot be directly observed and thus cannot be measured. An example of what to avoid is “Students will have knowledge of a selection of culturally diverse writings.”

• Focus on that particular course, even if it is part of a series of courses. Course 1A should not have the exact same SLOs as course 1B, 1C, or 1D. Likewise, SLOs should not be about the application of knowledge gained in the previous course in the series, rather what was learned in that particular course.

Examples of measureable SLOs:

<table>
<thead>
<tr>
<th>Subject</th>
<th>SLO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art</td>
<td>&quot;Students will distinguish form and content in 2D and 3D works of art.&quot;</td>
</tr>
<tr>
<td>Computer</td>
<td>&quot;Students will evaluate the strengths and weaknesses of open and closed source software development models.&quot;</td>
</tr>
<tr>
<td>Communications</td>
<td>&quot;Students will apply principles of logical argument and persuasion in their oral presentations.&quot;</td>
</tr>
<tr>
<td>English</td>
<td>“Students will integrate information from different types of secondary sources to support a thesis on a research paper.”</td>
</tr>
<tr>
<td>Graphic Design</td>
<td>“Students will identify formal principles associated with color theory.”</td>
</tr>
<tr>
<td>Library Studies</td>
<td>“Students will critically evaluate websites for possible use in an academic research paper.”</td>
</tr>
<tr>
<td>Math</td>
<td>&quot;Students will solve selected differential equations using graphical, numerical and analytical methods.&quot;</td>
</tr>
</tbody>
</table>

As measurability is important, it may be the case that departments will have to rewrite an SLO after generating an assessment instrument, making sure that the SLO still points to the most crucial skill or information that students will need for successful completion of the course.

How many SLOs are enough?
The average number of outcomes per course in most colleges and universities is between three and six. Too many SLOs can become excessive and overburdensome to the faculty teaching the course. If a course has a large number of outcomes, look to see if any are interrelated and establish a single outcome that speaks to the larger relationship, rather the smaller components individually. The goal is to establish what is the fundamental core of the course, not the various topics will be learned.

Designing the Assessment Instrument
What is an assessment “instrument”?
The instrument is what is given to the students specifically geared to measure whether students have achieved a particular outcome or set of outcomes. Special care must be taken to ensure that the instrument assesses how well the students meet the outcomes.
Be aware of the dimensions of the SLO, as an outcome could have more than one dimension that are the key aspects of that outcome. An outcome pertaining to ‘effective writing’ will have the dimensions of mechanics, style, and thesis development, and all those dimensions should be measured by the assessment instrument for that SLO.

The assessment instrument is not the same as a rubric. A rubric is the guidelines for evaluating the work done by the students, specifying the criteria for the levels of mastery on each dimension of the Student Learning Outcome. Some consideration should be given to how well students are expected to learn, to the level of mastery of the material, when establishing the assessment instruments and the goals for the SLOs. For this, a department-developed rubric for the assessment instrument would be useful, and can be added as supporting material on the Program Review.

**What can be used as an assessment instrument?**
The assignments of a course and / or individual questions on an exam are a useful tool for establishing an assessment instrument. Identify the true purpose of the assignments and analyze those purposes as to how they may relate to each of the SLOs for the course. If a portion of an assignment speaks directly to one or more of the SLOs, that portion can become the assessment instrument for the SLO(s) in question. In this way, the assessment of the SLOs is embedded naturally in the course.

Ideally, all sections of a course would use the same assessment instrument, but departments have the freedom to adjust to the individual nature of the department with the understanding that not using the same measurement instrument will affect the overall reliability and validity of the data gathered across sections.

See Appendix B for examples of Poor, Fair, Good, and Excellent Assessment Instruments used by departments at Mission College. There are parenthetical explanations for each classification. The section on Setting Goals, below, further explains a necessary component to the measurement of SLOs.

**Isn’t the grade on the assignment / exam a good enough assessment?**
Although counting letter grades may be easier, it provides neither consistent nor meaningful information about student achievement of a specific SLO, particularly across multi-section courses.

Assignment, exam, or course grades are an aggregate assessment of the student’s work, and other factors – such as timeliness, extra credit, grade curves, homework completion, and class participation – may be part of the calculation, not just the achievement of the particular SLO. Thus, it is important to remember that the grade for the assignment is not a true assessment of an SLO.
Types of Assessment Instruments

Non-Objective
In courses that require assignments or tests that deal with the application of more abstract concepts, such as Art or English, non-objective instruments are the norm. The first step in this process is to identify the dimensions of each SLO and generate a rubric that encompasses each of those dimensions and what is considered successful achievement of those dimensions. The second step is to ensure that all professors of the course have a clear understanding of both those dimensions and scoring rubric. If the faculty are part of the development process, consistent measurement of the SLO will result. See Appendix C for an example of a rubric for a non-objective assessment instrument that is also used to record a grade for the assignment.

Objective
This type of instrument allows for greater statistical analysis of student achievement, and can be further facilitated by the question report produced by the Scantron readers – when they are working. Often it is a good idea to have several objective questions point to the same outcome as this will assist in increasing both the reliability and the validity of the measurement of the SLO achievement. Equally important is to make sure that each question clearly points to only that SLO; in this case it might be a good idea to have a reader from outside the department check for the possibility of confusion or misinterpretation.

Non-Embedded
One way to assess how well students have achieved the outcomes is to ask them directly in a survey. While this is a decent substitute for an embedded measurement, it is often reliant on self-reported data that can have both reliability and validity issues. This method should only be used when better forms of assessment are not feasible.

Indirect
In some cases it might be tempting to rely on secondary data, or indirect evidence, such as an employer’s report about a student’s ability or the number of students who successfully transfer to a university. This indirect evidence does not provide evidence of student learning or mastery, in that other factors may affect the results.

How many assessment instruments does a course need to have?
When choosing an assessment method, consider both the ease of the application and the meaningfulness of the results.

An SLO that calls for improvement of the students’ abilities will necessitate more than one application of the assessment instrument. In this case, it is recommended that students be assured that the first application of the assessment instrument will not affect their course grade.
It is perfectly acceptable to measure multiple outcomes with one assessment instrument. Consider the following SLOs:

| SLO1: "Students will be able to describe major ecological principles." |
| SLO2: "Students will be able to critically analyze articles on environmental issues." |

A single writing assignment that requires that students analyze a given article on an environmental problem and apply the major ecological principles to that problem could then be scored on three dimensions: how well the student achieved the first SLO, how well the student achieved the second SLO, and how well the essay was written overall. While such a rubric as a whole may provide a grade for the assignment, the achievement of each SLO must be recorded independently of that grade.

**Setting Goals**

Once the assessment instrument has been created, set goals that should be met by the course under that assessment. This will entail specifying a percentage of students in the course sections achieving an established minimum mastery of the outcome. It is up to the departments to set the initial goals, but they should be realistic given the nature of the course.

Stating a goal of some percentage of students receiving a C grade or better is not viable for the purposes of SLO assessment. Again, grades are the aggregate of factors, not just the measurement of achieving a particular outcome. Look to the type of assessment instrument for guidance on establishing a level of mastery. An objective instrument will allow for a quantitative statement of mastery—a set number of questions correctly answered—whereas a non-objective instrument may lead to a reference to levels of mastery specified in the established rubric.

See the examples of “Excellent” Assessment Instruments in Appendix B for potential templates for setting goals within the instrument.

**The Assessment Process**

**How often should SLOs be assessed?**

Outcomes Assessment must be ongoing and done on a regular basis for each course—for true reliability of the data, assessment must become an academic habit. At a minimum, each SLO in each course must be assessed once per Program Review cycle. If assessment is done on a regular basis, there will not be a need to scramble to get the course assessments done before a Program Review is due. Likewise, regular assessment gives departments longitudinal data of student learning that will provide better evidence of sustained quality or improvement.

Some departments will choose to engage in annual assessments of a course’s SLOs, while others will assess more or less often, depending on the frequency of the course
being offered. CurricUNet is developing built-in reminders for chairs of departments to remind them that an assessment of a course needs to be done, but that reminder will be only 2 months before the deadline established by the department, so it is best that departments get into the habit of assessing courses on a routine basis. Consistency is the key.

**Who is in charge of assessment?**
Each department is responsible for the assessment of courses within that department. While the chair of the department is traditionally responsible for ensuring that course assessments are being done, other faculty within the department may assume that task. Departments with more than one professor teaching a course might consider having a course coördinator who will take on the responsibility of overseeing the implementation of the assessment instrument. Not only will this build in the consistency that is needed for assessment, it will also ease the overall burden in that no one person in the department will feel the burden of assuring that all the SLOs in all of the courses are being assessed.

**Variable Analysis**
It might be useful to a department to analyze the data on the basis of contributing variables. If departments wish to collect more extensive data than achievement of learning outcomes, such as examining the role of gender or ethnicity in achievement, departments may do so, but it is currently not part of the requisite SLO data collection. However, if such data is collected, departments should take care to aggregate the data so as to maintain the level of student privacy that is dictated by Federal Educational Rights and Privacy Act.

Perhaps of interest to departments might be to separate the results based on when different sections are offered to analyze the effect of days or times offered, standard or late start semesters, or other aspects of interest in student achievement. Students are more likely to sign up for a course if they have a higher expectation of success, and this will assist departments in maximizing their enrollments.

**Assessment Reports**
Once the course sections have been assessed, the department typically will create a report of the results for each course. While each department can generate its own format for this, or merely gather the raw data for analysis just prior to the Program Review, a standardized reporting form is advisable for departments with multiple sections taught by a variety of professors. The Mathematics department has seen success with their assessment report template (see Appendix D) such that adjunct and tenured faculty alike actively participate in the assessment process. Such documentation provides the department with strong and consistent evidence that can be used to advocate for the needs of a department.
## Appendix A

### OUTCOMES

**Active Verbs to use**  
*(not an exhaustive list)*

“Students will be able to….”

<table>
<thead>
<tr>
<th>Action</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acquire</td>
<td>Explain</td>
</tr>
<tr>
<td>Adapt</td>
<td>Express</td>
</tr>
<tr>
<td>Analyze</td>
<td>Formulate</td>
</tr>
<tr>
<td>Apply</td>
<td>Graph</td>
</tr>
<tr>
<td>Appraise / Assess</td>
<td>Hypothesize</td>
</tr>
<tr>
<td>Calculate</td>
<td>Identify</td>
</tr>
<tr>
<td>Categorize</td>
<td>Illustrate</td>
</tr>
<tr>
<td>Chart</td>
<td>Implement / Execute</td>
</tr>
<tr>
<td>Cite</td>
<td>Improve / Increase</td>
</tr>
<tr>
<td>Compare &amp;/or Contrast</td>
<td>Identify / Classify</td>
</tr>
<tr>
<td>Compile</td>
<td>Integrate</td>
</tr>
<tr>
<td>Compute</td>
<td>Label</td>
</tr>
<tr>
<td>Conclude</td>
<td>List / Outline / State</td>
</tr>
<tr>
<td>Construct / Build / Configure / Assemble</td>
<td>Measure</td>
</tr>
<tr>
<td>Convert</td>
<td>Obtain and process data</td>
</tr>
<tr>
<td>Correct</td>
<td>Operate</td>
</tr>
<tr>
<td>Correlate</td>
<td>Organize</td>
</tr>
<tr>
<td>Create / Generate</td>
<td>Predict</td>
</tr>
<tr>
<td>Critically examine</td>
<td>Prepare</td>
</tr>
<tr>
<td>Defend</td>
<td>Produce / Reproduce</td>
</tr>
<tr>
<td>Define / Interpret</td>
<td>Quote / Recall</td>
</tr>
<tr>
<td>Delineate</td>
<td>Rate</td>
</tr>
<tr>
<td>Describe</td>
<td>Recite</td>
</tr>
<tr>
<td>Detect</td>
<td>Recognize</td>
</tr>
<tr>
<td>Determine</td>
<td>Solve</td>
</tr>
<tr>
<td>Develop / Design</td>
<td>Specify</td>
</tr>
<tr>
<td>Diagram / Sketch detailed model</td>
<td>Summarize / Synthesize</td>
</tr>
<tr>
<td>Dissect</td>
<td>Support</td>
</tr>
<tr>
<td>Distinguish / Differentiate</td>
<td>Translate</td>
</tr>
<tr>
<td>Draw</td>
<td>Evaluate</td>
</tr>
</tbody>
</table>
Avoid these words
(Not an exhaustive list)
Taken from real SLOs at Mission:
Access
Appreciate
Become competent / knowledgeable / familiar
Carry on basic skills
Collaborate
Communicate
Complete
Conduct
Demonstrate / Show / Display / Present / Exhibit
Discuss
Dress professionally
Enhance
Fine tune task details
Have greater skills
Have knowledge of / to
Investigate
Know
Learn
Maintain
Minimum of 3 images, charts, or graphs
Participate / Collaborate
Pass the course
Practice
Raise their consciousness
Recommend
Perform Tasks
Spend / Complete _____ hours
Supplement
Teach / Mentor / Critique
Understand
Use / Utilize / Employ
Work independently / with
Write / Draft / Compose
Appendix B

ASSESSMENT INSTRUMENTS
Taken from course SLOs at Mission:

**Poor** (does not measure an observable learning outcome):
(Group) Presentations / Activities / Roll Playing
100% will achieve satisfactory evaluation and identify self-improvement.
Analyze case studies.
Assessment instrument: Observation.
Complete quizzes and exams.
Complete term project/research cases.
Conduct web-based research on a topic related to ____.
Create a personal professional portfolio.
Daily sign-in sheets.
Meet the requirements of the assignment.
Observe: cooperation and participation in group activities.
Participate in classroom discussion.
Present self-assessment analysis.
Projects are evaluated.
Received a passing score on a writing assignment.
Research, review and report to the class on _____.
Respond to questions on midterm and exams.
Student will identify. (Didn’t state what would be identified.)
Students produce knowledge.
Students give examples in written assignments.
Visit a local _____.

**Fair** (provides some measurement information):
A common final exam will be developed using the ________ Professional Association style of exam, deploying multiple choice questions, and be used to test the students’ knowledge of the stated outcomes.
Evaluation rubric.
Students will be assessed as to whether or not they received a passing score on a writing assignment.
Students will complete an essay or exam that demonstrates an understanding of the concepts of this outcome with brief explanation and examples of each.
Students will, through “One Minute” writing, name and describe elements of ____ as illustrated in film clips.

**Good** (provides measurement instrument, but the goal is inadequate):
Finished projects will be compared to what was produced at the state of the class.
Portfolio work: Complete ten 18”x24” charcoal and pencil drawings with bone and muscle reference, correct 7.5 heads proportions, and 1:1 ratio of figure to page.
Seventy percent of students receive a rating of satisfactory (C) on the observation form.
The student will be quizzed on improved ______ with a post-test ______. (S)he will succeed with 100% efficiency.

Students will complete _____ project with 70% accuracy. (Problem: does this mean all students in the section will do this?)

Students will demonstrate a minimum increase of 30% in course topics knowledge. Work will be assessed using a rubric developed by the department.

**Excellent** (contains both measurement instrument and goal):
75% of students will pass a written examination component of at least 5 questions taken from a standard pool of test items relevant to culture/language.

80% of students will be able to demonstrate all appropriate steps for _____ in an application practical and pass written exam with at least 85%

A Pre-/Post-Test Assessment Instrument will be used to demonstrate a minimum increase of 20% in individual student knowledge by 70% or more of each course section; section-wide improvement will also be at a mean improvement of 20% or better.

**Major Activity:** students will identify and describe various units of measurement.

**Assessment Instrument:** flash cards, workbook activities, exam questions  
**Performance Criteria:** 90% of the students will be able to correctly describe various units of measurement in their flash cards and/or on questions on a quiz/exam.

Ninety (90) percent of students will achieve an average score of 75% or higher on clinical performance evaluation rubric.

Ten multiple choice questions on the midterm will measure student ability to apply _____ to ______; 75% of the students shall be able to correctly answer 7 of the 10 questions.
Appendix C

The following is an example of a rubric used for a non-objective final course assignment doubling as an assessment instrument for the three SLOs listed below.

<table>
<thead>
<tr>
<th>Name:</th>
<th>Section _______</th>
<th>Logic: Excellent Good Fair Poor Non-Existent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logic:</td>
<td></td>
<td>Good</td>
</tr>
<tr>
<td>Grammar:</td>
<td>Excellent</td>
<td>Good</td>
</tr>
<tr>
<td>Sources:</td>
<td>Excellent</td>
<td>Good</td>
</tr>
<tr>
<td>Citation:</td>
<td>Excellent</td>
<td>Good</td>
</tr>
<tr>
<td>Pages:</td>
<td>Full 5</td>
<td>4.5</td>
</tr>
<tr>
<td>On Point:</td>
<td>Yes</td>
<td>Wanders a little</td>
</tr>
<tr>
<td>As assigned:</td>
<td>Yes</td>
<td>Mostly</td>
</tr>
<tr>
<td>Grade:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Logic: Clarity of thought; flow of presentation is logical, clearly organized

Sources: Quality, and some quantity

Citation: did they do this? Well?

Pages: 1550 words = 5 full pages

On Point: Are they allowing themselves to be side-tracked?, Did they fully answer the prompt?

As assigned: Did they actually do what was assigned: 2 pages pro, 2 pages con, 1 page opinion

SLO 1: Students will critically analyze two sides of an argument on a particular topic, and defend a personal opinion based on the evidence provided.

Goal 1: Seventy percent (70%) of students will score “Good” or “Excellent” on the “As Assigned” line of the rubric.

SLO 2. Students will apply the principles of logic to develop an essay that demonstrates clarity of thought and organization.

Goal 2: Seventy percent (70%) of students will score “Good” or “Excellent” on both the “Logic” and “On Point” lines of the rubric.

SLO 3: Students will synthesize evidence in academic level sources and properly cite those sources using MLA standards.

Goal 3: Seventy percent (70%) of students will score “Good” or “Excellent” on both the “Sources” and “Citation” lines of the rubric.
Appendix D
Mathematics department-developed reporting form.

<table>
<thead>
<tr>
<th>Course Assessed:</th>
<th>Section #:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester/Year:</td>
<td>Date Assessed:</td>
</tr>
<tr>
<td>Instructor Name:</td>
<td></td>
</tr>
</tbody>
</table>

Course SLO Assessed:

Assessment Question:

Method of Assessing SLO:

- [ ] Quiz
- [ ] Exam
- [ ] Final
- [ ] Survey
- [ ] Other, please specify: ___

Assessment Rubric:

<table>
<thead>
<tr>
<th>Above Average:</th>
<th>Average:</th>
<th>Below Average:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student demonstrates all of the required components of the problem.</td>
<td>Student demonstrates most of the required components of the problem.</td>
<td>Student demonstrates few of the required components of the problem.</td>
</tr>
<tr>
<td>Response is correct and supporting work is shown.</td>
<td>Response is incorrect due only to a minor error.</td>
<td>Response is incorrect due to more than a minor error.</td>
</tr>
<tr>
<td>This is what you would consider A work.</td>
<td>This is what you would consider B or C work.</td>
<td>No response.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>This is what you would consider D or F work.</td>
</tr>
</tbody>
</table>

Assessment Results:

<table>
<thead>
<tr>
<th>Above Average</th>
<th>Average</th>
<th>Below Average</th>
<th>Total Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Performance Goal:
At least 50% of students will achieve an "average" or "above average" score.

Results Analysis:

☐ The results met the performance goal.
☐ The results were below the performance goal.

Intended Changes:
Select one or more choices for each of the following statements.

I plan on making the following changes the next time I teach this course:

☐ Instructional activities
☐ Instructional pacing (spend a bit more time on this topic)
☐ Instructional materials (more supplementation)
☐ Faculty-student interaction
☐ No change, the results were satisfactory
☐ Other, please specify: _____

I recommend the following changes for the department:

☐ Assessment methods
☐ Textbook
☐ Student Learning Outcome language
☐ Faculty collaboration
☐ No change recommended
☐ Other, please specify: _____

I recommend the following changes for the college:

☐ Student textbook assistance
☐ Support for study skills
☐ Support for math skills
☐ Individual counseling for students
☐ In person tutoring support in this subject
☐ Online tutoring support in this subject
☐ No change recommended
☐ Other, please specify: _____

Instructor E-Signature: [Signature] Date: [Date]

Please email the completed results form to robert.reed@wvm.edu and letisha.lovern@wvm.edu by the end of the semester. Thanks!