STUDENT LEARNING OUTCOMES ASSESSMENT FUNDAMENTALS

1. Instructional units and some student support units will have student learning outcomes. Most likely, purely administrative units will not.

2. Student support units should identify expected student learning outcomes, as applicable. (i.e., what should a student know after attending a ConnectSession?)

3. Units will select which student learning outcomes to measure each year/semester. Not all program level student learning outcomes need to be assessed every year!

4. At least one General Education Learning Outcome should be assessed each year for instructional units. Not every general education student learning outcome needs to be assessed every year!

5. Assessment methods can vary widely across units and even within units. Multiple assessment methods for a single SLO are encouraged. Be sure to consider data already being collected elsewhere as possible assessment tools (i.e., student satisfaction surveys)

6. Data obtained through student learning outcome assessment should be used as the foundation for performance outcomes planning. If deficiencies are noted, set a performance outcome to address them. This also forms the foundation of your budget request.

7. All assessment of student learning outcomes will be documented in the Student Learning Outcomes database (formerly GELO).
USING THE STUDENT LEARNING OUTCOMES DATABASE

General Information

Access the student learning outcomes database from the Planning System Interface. You can download the Planning System here:
http://www.durhamtech.edu/faculty/research/planning/index.htm

Once you have downloaded the Planning System and saved it to your computer, you will not need to download it anymore. It will automatically update itself whenever you open it. Double click on the Planning Icon from your download destination.

Note: If you have never used Microsoft Access databases on campus previously or have recently updated your version of Microsoft Access, you may need to set your Macro settings prior to using the system. For more information, refer to http://www.durhamtech.edu/faculty/research/outcomes/SettingtheMacroSecuritylevelforAccess.pdf.

To enter student learning outcomes click on the “Student Learning Outcomes (SLO) (GELO) button.

In the upper right hand corner of the outcome entry window you will see buttons that will allow you to add a record, delete a record or duplicate a record. If you plan to assess the same student learning outcome in multiple years, click on “duplicate record.” The system will create a new record of the same outcome for you and will take you to it. The new record will have the current academic year assigned, results removed, and associated courses removed. If you have chosen to view all users outcomes via the checkbox on the opening menu, it is possible to duplicate another user’s outcome for your own use.

Additional Authorized User/Editor – type in the login id of a person you would like to have access to make entries and/or changes to your student learning outcomes. Usually, the login id is on the left side of a user’s DTCC email (e.g., The login id for Patrick Hines is hinesp as derived from hinesp@durhamtech.edu.) If you have designated an additional user and that user cannot edit the outcome, contact that user and ask them what name they use to sign on to their computer, this is their login id.

Navigation through the outcomes screen is best accomplished by using the “tab” key instead of clicking in each field.

Navigation Buttons
At the bottom of the outcomes screen, there is a row of buttons referred to as Navigation Buttons. These allow you to move to the first, previous, next or last outcomes as well as add new outcomes to the database.

For additional helpful tips, refer to:
http://www.durhamtech.edu/faculty/research/outcomes/MicrosoftAccessNotes.pdf.
The Student Learning Outcomes Database Screen

Fields

Academic Year – automatically populated from choice made when entering the database. Verify that it is correct for student learning outcome.

Department/Discipline/Program/Office – select your unit from those available in the drop down menu. **NOTE:** these selections are extracted directly from Colleague. If you believe there is an error in the identification of your unit, please contact the appropriate personnel for changes to be made. REAP is unable to edit these units.

Student Learning Outcome – This is a text box. Type in the student learning outcome you plan to assess. Each outcome will require a separate entry. (See later in this manual for assistance with writing effective student learning outcomes.)

General Education Learning Outcome – If the student learning outcome also assesses one of the college’s general education learning outcomes (GELO) select the appropriate one from the drop down menu provided. Otherwise, leave at “None.”
Quality Enhancement Plan – If the student learning outcome also assesses one of the outcomes in the college’s Quality Enhancement Plan (QEP) select the appropriate one from the drop down menu provided. Otherwise, leave at “None.” NOTE: The current QEP addresses the GELOs of oral and written communication. Future QEP topics will vary and address different outcomes.

Semester(s) Assessed – check the box(es) indicating which semester(s) the student learning outcome will be assessed.

Primary location of learning experience – From the drop down menu provided, select where the student will be learning the knowledge, skill(s), attitude(s) and/or ability(ies) indicated in the student learning outcome. NOTE: If you select “Classroom” an additional field appears asking for the course. Type in the course number using the format LLL-###.

The remaining fields are all text boxes. Type in the information in the appropriate box.

Performance Goal - What level of performance from students do you HOPE to see on the outcome?

Instructional Strategy - What method or means will be used to teach the student what the outcome requires?

Assessment Methodology - What method(s) will be used to measure student attainment of this outcome?

Assessment Tool(s) - What specific measurement tool(s) will measure student performance on the outcome?

Once the student learning outcome has been assessed, complete the remaining text fields.

Performance Results - What level of performance from students do you actually obtain on the outcome?

Use of Results - How will you (or have you) use(d) the results to improve student learning?
SAMPLE STUDENT LEARNING OUTCOMES FOR NON-INSTRUCTIONAL UNITS

EXAMPLE 1:

1. **Program/Department/Office:** Advising, Registration and Student Placement
2. **Student Learning Outcome:** Students will demonstrate the ability to successfully access their DTCC ConnectMail account.
3. **Semester(s) Assessed:** Fall, Spring
4. **GELO:** None
5. **QEP:** None

<table>
<thead>
<tr>
<th>Performance Goal</th>
<th>Instructional Strategy</th>
<th>Assessment Methodology</th>
<th>Assessment Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>90% of new incoming students will correctly access their DTCC ConnectMail account.</td>
<td>Lecture/demonstration/Activity</td>
<td>Demonstration/activity during ConnectSession</td>
<td>Instructor checklist for ConnectSession activity</td>
</tr>
</tbody>
</table>

**Performance Results**

94% of new incoming students successfully accessed their DTCC ConnectMail accounts during a ConnectSession advising activity.

**Use of results:**

Results exceeded Performance Goal. No change/improvement needed. Assess again in 3 years.

EXAMPLE 2:

1. **Program/Department/Office:** Admissions
2. **Student Learning Outcome:** Students will identify the correct documents and deadlines required for admission to the college.
3. **Semester(s) Assessed:** Fall
4. **GELO:** None
5. **QEP:** None

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>95% of students will identify the documents and deadlines for admission to the college correctly.</td>
<td>Consultation with an Admissions Counselor</td>
<td>Survey at completion of meeting with Admissions Counselor</td>
<td>Item on survey administered at completion of meeting with Admissions Counselor</td>
</tr>
</tbody>
</table>

**Performance Results**

85% of students correctly identified the documents and deadlines for admission to the college.

**Use of results:**

Results did not meet Performance Goal. Admissions Counselors reviewed standardized content for Admissions counseling sessions concerning forms and deadlines and the survey item referenced in the assessment tool. There was a mismatch between the content and the survey item. The survey item was revised to be consistent with the counseling session content. The outcome will be assessed again next semester to assess the impact of the new item.
EXAMPLE 3:

1. **Program:** Counseling, Student Development and Activities
2. **Program Outcome:** Students will compose a cover letter to accompany a job application.
3. **Semester(s) Assessed:** Spring; Summer
4. **GELO:** Written communication
5. **QEP:** Written Communication

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<tr>
<td>75% of students who receive career counseling services in the career center will correctly compose a cover letter to a potential employer.</td>
<td>Online tutorial</td>
<td>Test taken upon completion of module during online tutorial requiring development of cover letter.</td>
<td>Written communication scoring tool for employer cover letters.</td>
</tr>
</tbody>
</table>

**Performance Results**

75% of students who received career counseling services in the career center will correctly compose a cover letter to a potential employer.

**Use of results:**

Results met Performance Goal, but at minimal level. Based on feedback received from students indicating this was a difficult practicum to complete, career services counselors and coordinators met to review the online tutorial program and found it lacking in this subject matter area. The online tutorial was improved to emphasize the points graded by the rubric. Assess the impact of these changes in Fall semester.
SAMPLE STUDENT LEARNING OUTCOMES FOR INSTRUCTIONAL UNITS

EXAMPLE 1:

1. **Program:** Paralegal Technology  
2. **Program Outcome:** Students will correctly identify the necessary components of a legal brief.  
3. **Semester(s) Assessed:** Fall, Spring  
4. **GELO:** None  
5. **QEP:** None

<table>
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<tbody>
<tr>
<td>85% of students in the target course will correctly identify the necessary components of a legal brief.</td>
<td>Course lecture</td>
<td>Exam item in LEX 180</td>
<td>Short answer item on final exam in LEX 180</td>
</tr>
</tbody>
</table>

### Performance Results

95% of students correctly responded to the exam item in LEX 180.

### Use of results:

Results exceeded Performance Goal. No change/improvement needed. Assess again in 3 years.
EXAMPLE 2:

1. **Program**: Office Systems Technologies
2. **Program Outcome**: Students will recognize and correctly apply the rules of grammar and usage in written communications.
3. **Semester(s) Assessed**: Fall
4. **GELO**: Oral and Written Communication
5. **QEP**: Written Communication

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<th>Assessment Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% of students in the target course will score a 4 in the Grammar and Formatting section of the QEP written communication assessment tool.</td>
<td>Course lecture; practical exercises in ENG 111 and OST 164.</td>
<td>Exercise to produce applicant cover letter in OST 164.</td>
<td>QEP assessment tool for written communications</td>
</tr>
</tbody>
</table>

**Performance Results**

79% of students scored a 4 on the Grammar and Formatting scale of the QEP assessment tool.

**Use of results:**

Results did not meet Performance Goal. Students were polled for input on the performance level. Students indicated that they felt this topic was covered more thoroughly in ENG 111, that they wish they had had that course first, and that they did not do enough practical exercises in OST 164. Make ENG 111 a prerequisite for OST 164 and increase practical exercises for reinforcement in OST 164.
EXAMPLE 3:

1. **Program**: Criminal Justice Technology
2. **Program Outcome**: Students will apply ethical principles to situations in punishment and corrections.
3. **Semester(s) Assessed**: Spring; Summer
4. **GELO**: Ethical decision-making
5. **QEP**: Oral Communication

<table>
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</tr>
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<tbody>
<tr>
<td>80% of students in the capstone course will correctly apply ethical principles to situations in corrections.</td>
<td>Zimbardo video “The Stanford Prison Experiment;” class lecture; class discussion</td>
<td>Group discussion of video clips showing questionable and acceptable correctional practices</td>
<td>Rubric for discussion participation.</td>
</tr>
</tbody>
</table>

**Performance Results**

80% of students correctly applied ethical principles during discussion of video clips.

**Use of results:**

Results met Performance Goal, but at minimal level. Reconsider use of Zimbardo video due to age. Reconsider instructional method to include role play/practical exercises. More class time needed on this topic; add class time in other program classes.
WRITING STUDENT LEARNING OUTCOMES

Writing effective student learning outcomes and a plan for assessing them is really a matter of asking and answering just a few questions about the students in your class/program.

1. What information should students who complete your class/program KNOW?

2. What should students who complete your class/program be able to DO?

Keep in mind that you will need to find out whether or not students actually do KNOW and can DO what you have identified in Items 1 and 2. Therefore, you must word the outcome using verbs that are observable and/or measurable. Many academic units use the phrase “Students will understand…” in their student learning outcomes, but “understanding” is not easily observed or measured. “Understand” is a verb that is suited more to general learning goals, not specific learning outcomes. Think about how a student would show you that s/he “understands” a concept. Some good, measurable and observable verbs to use in SLOs include:

    Define, describe, compare, contrast, identify, list, recall, recognize, explain, restate, apply, solve, choose, develop, propose, evaluate, assess, judge, critique

Note that whatever verb is chosen to express the learning outcome should relate to the depth of the learning that is expected to take place. For example, “The student will name the area of the brain associated with language acquisition” expresses a different level of learning than “The student will compare and contrast the effects of damage to Broca’s Area in the brain during childhood and during adulthood.”

Those familiar with Bloom’s taxonomy will note that he identified 6 levels of learning in hierarchical order.

When you are writing SLOs and choosing verbs, be sure to consider the level of learning expected so there will be a match.
The following table provides assistance in selecting verbs matched to levels of learning:

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Comprehension</th>
<th>Application</th>
<th>Analysis</th>
<th>Synthesis</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>tell</td>
<td>explain</td>
<td>solve</td>
<td>analyze</td>
<td>create</td>
<td>judge</td>
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<tr>
<td>list</td>
<td>interpret</td>
<td>show</td>
<td>distinguish</td>
<td>invent</td>
<td>select</td>
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<tr>
<td>describe</td>
<td>outline</td>
<td>use</td>
<td>examine</td>
<td>compose</td>
<td>choose</td>
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<tr>
<td>relate</td>
<td>discuss</td>
<td>illustrate</td>
<td>compare</td>
<td>predict</td>
<td>decide</td>
</tr>
<tr>
<td>locate</td>
<td>predict</td>
<td>construct</td>
<td>contrast</td>
<td>plan</td>
<td>justify</td>
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<tr>
<td>write</td>
<td>restate</td>
<td>examine</td>
<td>investigate</td>
<td>construct</td>
<td>debate</td>
</tr>
<tr>
<td>find</td>
<td>translate</td>
<td>categorize</td>
<td>propose</td>
<td>design</td>
<td>verify</td>
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<tr>
<td>state</td>
<td>compare</td>
<td>explain</td>
<td>imagine</td>
<td>imagine</td>
<td>argue</td>
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<tr>
<td>name</td>
<td>describe</td>
<td>separate</td>
<td>propose</td>
<td>devise</td>
<td>recommend</td>
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<tr>
<td>identify</td>
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<td>advertise</td>
<td>formulate</td>
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<td>assess</td>
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<td>recall</td>
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<td>discuss</td>
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<tr>
<td>recognize</td>
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<td></td>
<td>rate</td>
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</table>

To develop an assessment plan based on the outcomes, go on to ask the following:

3. How will WE know that students know the information in Item #1?

4. How will WE know that students can DO the item(s) referenced in #2?

To answer questions 3 & 4, you will need a tool for measurement. This could be a tool specifically designed for this purpose, or it could be some assessment/testing you are already doing that is pulled out to meet the measurement requirement. For example, measurements can be embedded in class activities and assignments. These might include examination items and/or class presentations, papers or other assignments.

Once you have compiled the results of the measurements, it is time to take a look at what they tell you. This means comparing them to some pre-established standard, sometimes referred to as a benchmark. We use the term performance goal. The performance goal may come from an outside certification agency, prior year’s performance, another unit’s performance on the same measure, etc. All that is required is that the standard against which you are going to compare your performance is selected in advance and bears a logical relationship to the measure you are conducting. This can be expressed as a percentage of people, time, etc. For example, “75% of students will score an 80 or above on the certification exam.” Or, “students will be present for 80% of the class periods during the semester.”

Finally, once you compare the actual performance achieved to the performance goal, determine how the results will be used. If performance is satisfactory, then the results may simply be used to document adequate performance and re-assess in the future. If they are less than satisfactory,
then steps should be taken to figure out why performance did not meet expectations and make changes based on that inquiry. If performance far exceeds expectations, perhaps the performance goal and/or student learning outcome should be re-visited for revision.

If you have questions about writing and/or assessing student learning outcomes, please contact either Peter Wooldridge (8046) or Teri Kaasa (2801) for assistance. If you have questions about using the Student Learning Outcomes database, please contact Patrick Hines (2804) for assistance.