EXAMPLE #1: ENGINEERING—Alumni Survey (Indirect measure)

Developed Efficient Practices
- The College of has been conducting alumni surveys since 1999.
- Contact information for our alumni is provided by the Alumni Association.
- Initially the survey was conducted yearly and sent to 2\textsuperscript{nd}, 6\textsuperscript{th}, and 15\textsuperscript{th} year alumni.
- After enough data had been collected, it was realized that there was no significant statistical difference between the responses provided by the 2\textsuperscript{nd} and 6\textsuperscript{th} year alumni. In addition, very little data was being received from the 15\textsuperscript{th} year alumni. Based on that information it was decided to send the survey out every two years and to send it out to our 2\textsuperscript{nd} and 3\textsuperscript{rd} year alumni.

Instrument Design
- The survey consists of four parts:
  - Demographic information,
  - Questions that are used by all degree programs,
  - Questions from each degree program – alumni are asked what degree they received and they are routed to that section, and
  - A targeted survey – previous targeted surveys include: Globalization, Ethics, Lifelong Learning, Computing, and Leadership.
- The common questions ask for information on:
  - Importance of the topic, and
  - Alumni preparation in the topic.
  - The difference between the two (preparation minus importance) gives us data on how prepared our alumni feel about a topic in relationship to the importance of the topic.

Effective Procedures
- For the past few survey respondents have had the option of indicating if they wish to be included in a drawing for two home football tickets. Responses have increased about three to four percent since then and for the past three years have been 20.7%, 25.1%, and 22.9%.
- The initial request to complete the survey has always been a letter signed by the dean or department chair.
- In addition, we have been sending a reminder e-mail message out to the alumni.
- Initially, responses were sent back to us in a return envelope and the data entered into a spreadsheet by hand. Recently, responses have been collected through a website and we are currently using Qualtrics software to do this.

Reports
- Reports are written at the college level covering demographics, common questions, and the targeted survey.
- Programs are expected to create their own report on their section of the survey.

Uses
- Information from the survey has assisted with:
  - ABET accreditation, and
  - Changing/updating our curriculum.

Additional Information
- Information on Accreditation and Assessment in the College of Engineering that include copies of reports on alumni surveys can be found at: http://engineering.osu.edu/about/faculty-and-staff/administrative/accreditation

Handout prepared for: University-Wide Assessment Conference-March 8, 2013
Introduction
The College of Engineering has been surveying alumni regarding ABET Objectives and Outcomes since 1999. This is the fourth implementation of a revised, alternative year alumni survey process established by the Outcomes Assessment Committee of the College. The general survey and the accompanying targeted survey are intended to be part of the outcomes assessment process for all programs in engineering. The survey was sent to 2\textsuperscript{nd} (2010) and 3\textsuperscript{rd} (2009) year alumni of the college. The survey has both college common and program specific elements. The college common element focuses on program outcomes, satisfaction with programs, and demographics. Sixteen questions related to educational outcomes were included. Program specific elements generally focused on program objectives and program specific issues. The topic for the targeted survey was Globalization. This is the fourth time the survey was conducted using a web-based survey, but the first time Qualtrics software was used. A response rate of 22.9\% ($n = 315$ responses) was achieved. The sample appears to be reasonably representative of graduates of the college. All topics were ranked on a scale from 1 to 5 with 5 being the best.

General Alumni Survey
Data indicated that in four topic areas the college appears to have reached a balance between importance and preparation. These four topic areas are:

<table>
<thead>
<tr>
<th>Question</th>
<th>Importance</th>
<th>Preparation</th>
<th>Difference (Prep-Imp)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to: Function in culturally and ethnically diverse environments</td>
<td>3.62</td>
<td>3.68</td>
<td>0.06</td>
</tr>
<tr>
<td>Ability to: Design &amp; conduct experiments</td>
<td>3.36</td>
<td>3.22</td>
<td>-0.14</td>
</tr>
<tr>
<td>Ability to apply knowledge of: Math</td>
<td>4.39</td>
<td>3.77</td>
<td>0.28</td>
</tr>
<tr>
<td>Ability to: ID &amp; solve engineering problems</td>
<td>4.03</td>
<td>3.73</td>
<td>-0.30</td>
</tr>
</tbody>
</table>

In the 2009 survey the balanced topic areas were:

<table>
<thead>
<tr>
<th>Question</th>
<th>Importance</th>
<th>Preparation</th>
<th>Difference (Prep-Imp)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to: Function in culturally and ethnically diverse environments</td>
<td>3.67</td>
<td>3.92</td>
<td>0.24</td>
</tr>
<tr>
<td>Understanding of: Impact of engineering solutions in a global and societal context</td>
<td>3.32</td>
<td>3.22</td>
<td>-0.10</td>
</tr>
<tr>
<td>Understanding of: Professional and ethical responsibility</td>
<td>4.03</td>
<td>3.84</td>
<td>-0.19</td>
</tr>
<tr>
<td>Understanding of: Contemporary issues</td>
<td>3.25</td>
<td>2.99</td>
<td>-0.26</td>
</tr>
<tr>
<td>Ability to: Identify, formulate, and solve engineering problems</td>
<td>4.08</td>
<td>3.80</td>
<td>-0.28</td>
</tr>
</tbody>
</table>
Three of the 2009 questions (Understanding of: Impact of engineering solutions in a global and societal context; Understanding of: Professional and ethical responsibility; and Understanding of: Contemporary issues) were not included in the 2012 survey.

Data would indicate that the top seven topics for continued or further consideration in program development across the college, based on large differences, either positive or negative, between rated importance and preparation, are:

<table>
<thead>
<tr>
<th>Question</th>
<th>Importance</th>
<th>Preparation</th>
<th>Prep-Imp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to Function on multi-disciplinary teams</td>
<td>4.17</td>
<td>3.62</td>
<td>-0.55</td>
</tr>
<tr>
<td>Ability to: Communicate effectively in writing:</td>
<td>4.25</td>
<td>3.67</td>
<td>-0.58</td>
</tr>
<tr>
<td>letters, technical reports, etc.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to: Manage an engineering project</td>
<td>3.58</td>
<td>3.27</td>
<td>-0.58</td>
</tr>
<tr>
<td>Ability to apply knowledge of: Chemistry</td>
<td>2.31</td>
<td>2.91</td>
<td>0.60</td>
</tr>
<tr>
<td>Ability to: Analyze &amp; interpret data</td>
<td>4.39</td>
<td>3.75</td>
<td>-0.64</td>
</tr>
<tr>
<td>Ability to: Use computing technology</td>
<td>4.42</td>
<td>3.77</td>
<td>-0.65</td>
</tr>
<tr>
<td>Ability to: Communicate effectively orally: informal &amp; prepared talks</td>
<td>4.42</td>
<td>3.58</td>
<td>-0.84</td>
</tr>
</tbody>
</table>

In the 2009 survey the seven topics with the largest differences, positive or negative, were:

<table>
<thead>
<tr>
<th>Question</th>
<th>Importance</th>
<th>Preparation</th>
<th>Prep-Imp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to: Analyze &amp; interpret data</td>
<td>4.43</td>
<td>3.74</td>
<td>-0.69</td>
</tr>
<tr>
<td>Ability to: Communicate effectively orally: informal &amp; prepared talks</td>
<td>4.43</td>
<td>3.55</td>
<td>-0.87</td>
</tr>
<tr>
<td>Ability to: Use computing technology</td>
<td>4.36</td>
<td>3.64</td>
<td>-0.72</td>
</tr>
<tr>
<td>Ability to: Manage an engineering project</td>
<td>4.08</td>
<td>3.21</td>
<td>-0.87</td>
</tr>
<tr>
<td>Understanding of: Business &amp; financial aspects of professional practice</td>
<td>3.76</td>
<td>2.74</td>
<td>-1.02</td>
</tr>
<tr>
<td>Ability to apply knowledge of: Chemistry</td>
<td>2.12</td>
<td>3.04</td>
<td>0.93</td>
</tr>
<tr>
<td>Ability to apply knowledge of: Biology</td>
<td>1.44</td>
<td>2.34</td>
<td>0.90</td>
</tr>
</tbody>
</table>

The difference between the two surveys is that Ability to apply knowledge of Biology is no longer one of the top seven as it has been replaced by the Ability to function on multi-disciplinary teams.
EXAMPLE #2: ANTHROPOLOGY –Embedded Testing (direct measure)

Learning Goals
1. Students acquire foundational knowledge in each of the three major sub-disciplines within the major (Physical Anthropology, Cultural Anthropology, and Archaeology).
2. Students achieve mastery of core concepts in each of the three major sub-disciplines within the major . . . In doing so they will acquire rigorous and empirically oriented skills.
3. Students accumulate breadth of knowledge by completing elective coursework in each of the three sub-disciplines within the major . . .
4. Students achieve in-depth knowledge in one (or more) field by choosing at least two additional courses in any sub-discipline . . . within the major.

Assessment example: Goal #1

Method: Direct measure: embedded testing

Criteria: Embedded questions are evaluated according to criteria established by the faculty instructor in each sub-discipline.

Planned Use: The principle means of assessing learning outcomes within the Anthropology major is embedded questions in examinations. This tool has been used in all sections of ANT 33401 (Fundamentals of Archaeology) and, beginning in 2008-2009, in sections of ANT 3300 (Human Origins). . . .

Implementation Schedule: Assessment is under way and will continue annually.

Evidence: During our most recent assessment year . . . correct response rate for two sections of 3401 did not differ significantly from previous years (~82%). Correct response in a third section of 3401 was much lower (28.3%). This variation is likely explained by a difference in question presentation and variation in faculty expectations. Correct response rates for sections of ANT 3300 were 90% and 94%, respectively. The collected information is discussed regularly with the department chair, chair of undergraduate studies, sub-discipline coordinator, graduate instructors, and entire faculty. . . .
EXAMPLE #3: SOCIAL WORK—Field Evaluation Form (direct measure)

(outcome-based, holistic assessment of program goals via direct measures)

Learning Goals

1. Identify as a professional social worker and conduct oneself accordingly
2. Apply social work ethical principles to guide professional practice
3. Apply critical thinking to inform and communicate professional judgments
4. Engage diversity and difference in practice (includes age, class, color, culture, disability, ethnicity, gender, gender identity and expression, immigration status, political ideology, race, religion, and sexual orientation)
5. Advance human rights and social economic justice
6. Engage in research-informed practice and practice-informed research
7. Apply knowledge of human behavior and the social environment
8. Engage in policy to practice to advance social and economic well-being and to deliver effective social work services
9. Respond to contexts that shape practice
10. Engage, assess, intervene, and evaluate with individuals, families, groups, organizations, and communities.

[All 10 Learning goals are assessed using a single field placement evaluation, on the principle that in the senior-year field placement all SW majors should demonstrate the achievement of all program learning goals. Thus, while the actual assessments may yield different success rates for different goals, the method, criteria, planned use, and implementation schedule are the same for all 10 goals.]

Method: 1) All students are required to complete a 2-semester senior year field placement that integrates classroom knowledge and skills with practice. The field evaluation form, which is completed at the end of each semester, evaluates achievement of [each goal] utilizing the following rating scale: Advanced Competence; Competence; Emerging Competence; Insufficient Progress; and Unacceptable Progress. 2) Students complete the Association of Social Work Boards (ASWB) Bachelor’s Level Licensure Exam during the semester they are to graduate or shortly after graduation. Student performance is monitored by compiling first-time pass/fail rates. 3) Students must achieve a minimum grade of ‘C’ in all social work courses. A grade review is conducted at the end of each academic year.

Criteria: Minimum criteria established to assert that [each Goal] was achieved: 1) 80% of students will receive a rating of “Competence” or above on the final semester Field Evaluation
form. 2) 80% of students will pass the ASWB Bachelor’s Level Licensure Exam on their first attempt. 3) The College is currently engaged in establishing meaningful criteria for grade reviews. Criteria of excellence established: 1) 90% of students will achieve a rating of “Competence” or above on the final semester Field Evaluation Form. 2) 90% of students will pass the ASWB Bachelor’s Level Licensure Exam on their first attempt.

**Planned Use:** Field evaluation data, grade review data, and licensure examination results will be summarized and presented to the Undergraduate Studies Committee, Educational Policy Committee, and faculty and used to inform College decision processes regarding curriculum content and development.

**Implementation Schedule:** Annual review of field evaluations, final course grades, and licensure exam results.

**EXAMPLE #4: ENGLISH—Assessing Goals in Rotation**

**Learning Goals**

1. Students exhibit broad knowledge, understanding, and appreciation of literatures written in English, especially the British and American traditions, including main literary-historical periods, major authors, and history of the English language.
2. Students demonstrate high levels of proficiency in oral and written communication. The ability to write persuasively and elegantly using the skills of argumentation, rhetoric, style, and bibliographical citation.
3. Students demonstrate skill in using the critical tools and terminologies needed to analyze and assess a range of texts. The ability to identify the formal properties of texts as well as major literary forms and genres.
4. Students display an informed awareness of different critical theories, methodologies, and approaches to studying texts.
5. Students demonstrate understanding of the historical and cultural contexts in which texts are produced, disseminated, and received, and skill at relating texts to these contexts.

In this example, I want to call attention to the Implementation Schedule: “The original plan was developed in 2005; subsequently the complete set of goals, each of four, was evaluated in a rotating sequence over four years, 2006-2009. With our revised goals in semester conversion (to 5 goals), we will revisit this schedule.”
English is a very large department, and (like most arts and humanities programs, other than foreign languages) it does not have a culture of assessment to draw upon. It therefore was appropriate to stage their assessment sequentially, in manageable segments, and through which they could refine their assessment tools, their review of findings, and their assessment of needed changes.