## UC San Diego - WASC Exhibit 7.1
### Inventory of Educational Effectiveness Indicators

<table>
<thead>
<tr>
<th>Academic Program</th>
<th>What are these learning outcomes?</th>
<th>Other than GPA, what data/evidence are used to determine that graduates have achieved stated outcomes for the degree? (e.g., capstone course, portfolio review, licensure examination)?</th>
<th>Who interprets the evidence? What is the process?</th>
<th>How are the findings used?</th>
</tr>
</thead>
</table>
| **Department:** Structural Engineering | **Written Communication** d) An ability to function in multidisciplinary teams.  
g) An ability to communicate effectively with written, oral, and visual means. | **Written Communication**  
- A matrix has been generated that describes the mapping of student outcomes to individual SE courses.  
- For each outcome, an additional evaluation matrix has been created as an assessment tool (rubric) to evaluate individual traits of an outcome based on four achievement levels.  
- To ensure that all students have the skills necessary for successful professional practice (team participation and effective verbal/written communication), group activities and projects, written reports and formal verbal presentations are required in a number of courses starting from freshman year and assessed directly using a rubric.  
- Assessment of student outcomes through graduating senior survey and through Jacobs School alumni survey.  
- Assessment of program objectives and of student outcomes through employer survey.  
- Assessment of courses and individual course outcomes through self-evaluation by faculty teaching the course. This enables courses to be continuously improved to better meet both students’ needs and the Department’s goals and objectives.  
- Assessment of courses through student surveys conducted by CAPE.  
- Assessment of course outcomes by department-administered student surveys. | **Written Communication**  
- Undergraduate Affairs and ABET Committees regularly review student outcomes.  
- An Industrial Advisory Board is also convened annually to provide input on various aspects of the program assessment (objectives, outcomes).  
- All of the evidence collected in column (3) is evaluated by the Undergraduate Affairs and ABET committees.  
- The faculty self-assessments are reviewed quarterly by Faculty ad hoc Curriculum Committees for a variety of sub-disciplines. Issues raised by these committees are reviewed by Undergraduate Affairs and ABET committees.  
- Vice Chair for Undergrad Affairs acts on all requests/petitions for variation of requirements. | **Written Communication**  
- Individual course instructors use feedback to modify their classes.  
- ACS collects annual data from all approved departments and publishes outcomes.  
- An action plan is developed based on the measurement and assessment of surveys, the evaluation and analysis of faculty self-assessments, and results from direct assessments.  
- Based on the findings, the department adjusts requirements and course sequences for the major.  
- Any curriculum improvements recommended by the Undergraduate Affairs and ABET committees must be endorsed by the faculty before implementation. |
| **Major:** Structural Eng. | **Oral Communication** d) An ability to function in multidisciplinary teams.  
g) An ability to communicate effectively with written, oral, and visual means. | **Oral Communication**  
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10/14/2018 Please date the form
outcomes through employer survey.

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**Quantitative Reasoning:**

| a) | An ability to apply knowledge of mathematics, science, and engineering. |
| b) | An ability to design and conduct experiments, as well as being able to analyze and interpret data. |
| c) | An ability to design a system, component, or process to meet desired needs. |
| e) | An ability to identify, formulate, and solve engineering problems. |
| k) | An ability to use modern engineering techniques, skills, and computing tools necessary for engineering practice. |

**Quantitative Reasoning**

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**Information Literacy**

| f) | An understanding of professional and ethical responsibility. |
| h) | The broad education necessary to understand the impact of engineering solutions in a global and societal context. |
| i) | A recognition of the need for and an ability to engage in life-long learning. |
| j) | A knowledge of contemporary issues. |
| k) | An ability to use modern engineering techniques, skills, and computing tools necessary for engineering practice. |

**Information Literacy**

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(2b)
**Where are the learning outcomes published? Please provide your department/program website address.**

**SE Website:**
http://www.structures.ucsd.edu/

**SE UG Handbook:**
http://se.ucsd.edu/sites/se.ucsd.edu/files/academic-files/UG.Hndbk_%20Revised%2010.16.18.pdf

**SE ABET Google Drive:**
https://drive.google.com/drive/folders/0BzCSCCYT-cS9aGNzOUh6WmRJZTQ