

## Alignment between ABET Student Learning Outcomes (SLO) and Mānoa Undergraduate Institutional Learning Outcomes (ILO)

ABET SLO	Related undergraduate ILOs
1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.	1a. General education, 1b. Specialized study in an academic field, 2a. Think critically and creatively, 2b. Conduct research
2. An ability to apply the engineering design process to produce solutions that meet specified needs with consideration for public health and safety, and global, cultural, social, environmental, economic, and other factors as appropriate to the discipline.	1a. General education, 1b. Specialized study in an academic field, 2a. Think critically and creatively, 2b. Conduct research, 3c. Stewardship of the natural environment
3. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.	1b. Specialized study in an academic field, 2a. Think critically and creatively, 2b. Conduct research
4. An ability to communicate effectively with a range of audiences.	1b. Specialized study in an academic field, 2c. Communicate and report, 3d. Civic participation in their communities
5. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.	1a. General education, 1b. Specialized study in an academic field, 1c. Understand Hawaiian culture and history, 3b. Respect for people and cultures, in particular Hawaiian culture, 3c. Stewardship of the natural environment, 3d. Civic participation in their communities
6. An ability to recognize the ongoing need to acquire new knowledge, to choose appropriate learning strategies, and to apply this knowledge.	1a. General education, 1b. Specialized study in an academic field, 3a. Continuous learning and personal growth, 3d. Civic participation in their communities
7. An ability to function effectively as a member or leader of a team that establishes goals, plans tasks, meets deadlines, and creates a collaborative and inclusive environment.	1a. General education, 1b. Specialized study in an academic field, 2c. Communicate and report, 3b. Respect for people and cultures, in particular Hawaiian culture

### Mānoa Institutional Learning Objectives for Undergraduate Students

Institutional Learning Objectives (ILOs) encompass the UH Mānoa undergraduate experience as a whole—academic and cocurricular. It is through the combined efforts of faculty, students, staff, and administrators that students achieve the ILOs.

#### 1. Know -- Breadth and Depth of Knowledge

- 1a. General education
- 1b. Specialized study in an academic field
- 1c. Understand Hawaiian culture and history

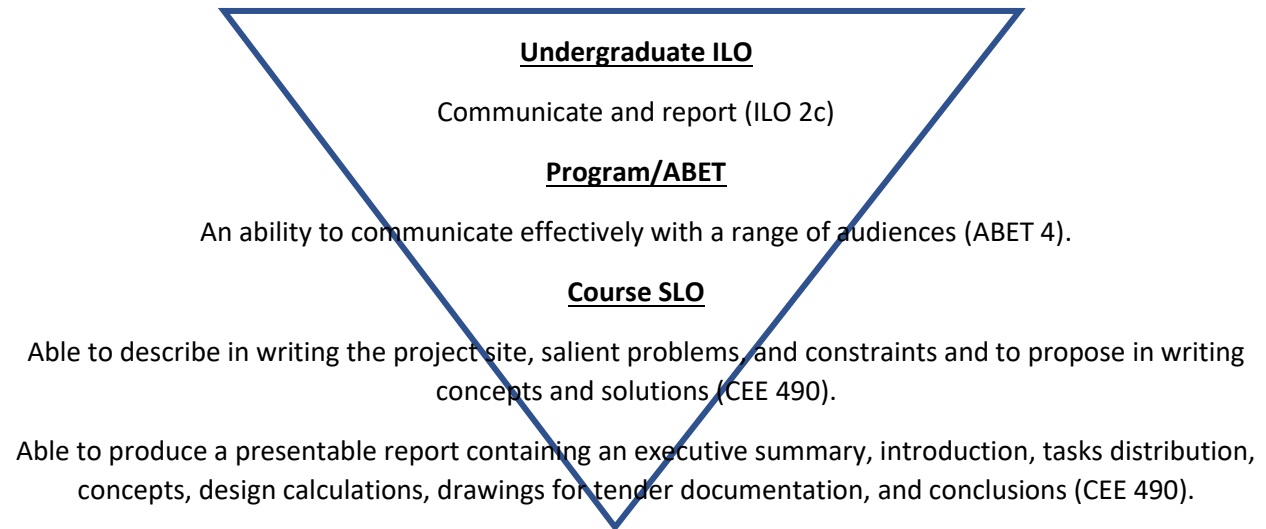
#### 2. Do -- Intellectual and Practical Skills

- 2a. Think critically and creatively
- 2b. Conduct research
- 2c. Communicate and report

#### 3. Value -- Personal and Social Responsibility

- 3a. Continuous learning and personal
- 3b. Respect for people and cultures, in particular Hawaiian
- 3c. Stewardship of the natural
- 3d. Civic participation in their communities

## Example of Alignment



### *ILO Assessment Overview: Example*

- 1. ILOs assessed: think critically and creatively (2a); communicate and report (2c)*
- 2. Student learning evidence: senior capstone project report*
- 3. Evaluation tool: scoring rubrics*
- 4. Evaluation: Capstone course instructor scores his/her students and a random sample are scored by faculty on the ILO Assessment Team*
- 5. Reporting: aggregate results are reported to faculty, administrators, and WASC*
- 6. Use: aggregate results are used by faculty groups to improve overall campus effectiveness*