

Example of Program Learning Outcomes for Hula Hoop Engineering

1. Students will become proficient in the fundamental concepts of engineering, science, and creativity to generate the intellectual curiosity to provide for a successful career, and life-long learning.

Example assessments used to evaluate Program Outcome 1:

- a. Design, implement, and verify hula hoop systems of varying complexity by using appropriate techniques and tools and by selecting appropriate design patterns, architectures, languages, and testing approaches.
- b. Evaluate a hula hoop system with respect to criteria such as performance, complexity, correctness, and usability.
- c. Apply problem-solving techniques to solve real-world hooping problems.

2. Students will be able to design effective hula hoop systems.

Example assessments used to evaluate Program Outcome 2:

- a. Apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of hula hoop-based systems.
- b. Estimate the feasibility and effort required to build a particular hula hoopsystem.
- c. Identify and specify requirements for hula hoop systems by selecting appropriate modeling techniques and tools.

3. Students will have the ability to function on multidisciplinary teams.

Example assessments used to evaluate Program Outcome 3:

- a. Participate as a productive member of a team.
- b. Solve common problems in team dynamics.

4. Students will serve as productive members of society by recognizing the social, ethical, environmental, and political implications involved in the engineering of hula hoops.

Example assessments used to evaluate Program Outcome 4:

- a. Project the potential impacts of technical decisions on the individuals, organizations and external constituencies involved, and identify ethical and legal implications.
- b. Apply the insights embodied in the professional codes of hula hoop ethics.

5. Students will be able to communicate effectively to technical and non-technical audiences.

Example assessments used to evaluate Program Outcome 5:

- a. Present technical information orally.
- b. Write a professional technical report.
- c. Formulate and pose incisive, technical questions.

