

Standards Analysis

Assignment Overview

Examine mathematics, science and technology and engineering education standards documents to analyze how they overlap in the area of engineering design and problem solving. Below are possible suggestions for standards to explore, but you should use any standards applicable to your specific state or teaching assignment. Please compare at least three different standards.

Common Core Math Standards <http://www.corestandards.org/Math/>

ITEEA Standards for Technological and Engineering Literacy (Located in Resources Folder and Lessons area of OLS) and <https://www.iteea.org/stel.aspx>

Next Generation Science Standards <http://www.nextgenscience.org/overview-dci>

NCTM <http://standards.nctm.org/>

Rationale

This assignment allows you to explore how problem solving and engineering design can be a “unifying” concept/skill across the STEM disciplines. By examining the three standards documents similarities and differences can be made more apparent.

Develop and submit a 1-2 page synthesis answering the following questions,

- Which technology education, mathematics, and science standards relate to problem solving or engineering design?
- How are these standards similar to each other?
- How are they different from each other?
- What are your thoughts on engineering design problem solving as a “unifying” concept/skill?

Evaluation

Your responses to the questions will be assessed according to the following criteria:

- A. Clarity of Expression (50%): Did you present your ideas and responses to the questions clearly and effectively?
- B. Explanation (25%): Did you explain your answers sufficiently and indicate clarity of understanding?
- C. Grammar (25%): Were your responses written in an appropriate fashion, using proper grammar and punctuation?