

A Call to Action: Basic Technical Standards Education

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Introduction

Background: The engineering profession expects all students and new hires entering the workforce to have a basic understanding of and exposure to technical standards. The business world agrees that such education is necessary. Yet engineering departments in academic institutions nationwide need to provide the quantity and quality of technical standards education demanded of engineers in the United States of America. Fortunately, the development of free, open-source, customizable modules is gaining popularity as the much-needed holistic solution to this problem.

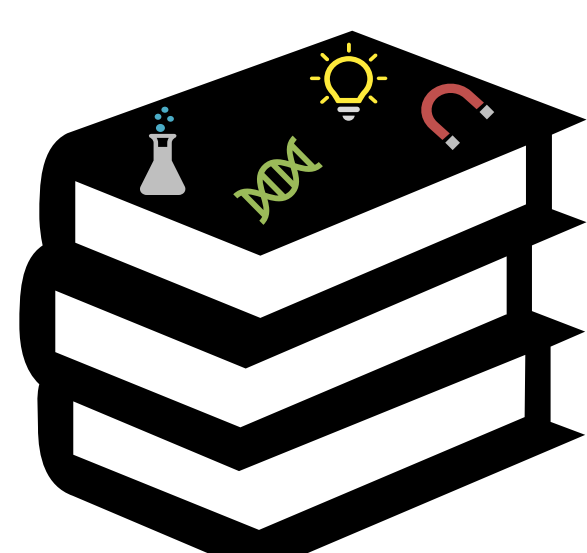
Problem: Academic institutions are expected to provide basic technical standards education but are not positioned or incentivized to do so.

Solution: A free, open-source, full-customizable curriculum developed by experts who provide basic technical standards training.

Technical Standards Education Challenges:

-  New college graduates' standards knowledge falls short of managers' expectations
-  ABET 2024-2025 requirements require earlier standards introduction at the undergraduate level
-  Professors lack standards knowledge and industry experience
-  Scarcity of clinical professors and professors of practice in engineering colleges
-  Decreasing sustainability of university librarians, the academic standards gatekeepers
-  Increasing demand for professional engineers (with strong standards knowledge)

Proposed Solution:



Technical Standards in Engineering Program

Curriculum Modules

DEFINITION OF STANDARDS: The basics and misconceptions

HISTORY OF STANDARDS: The origin and motivation

DEVELOPMENT PROCESS: Creation and development

STANDARDS PARTS: Documentation deep-dive

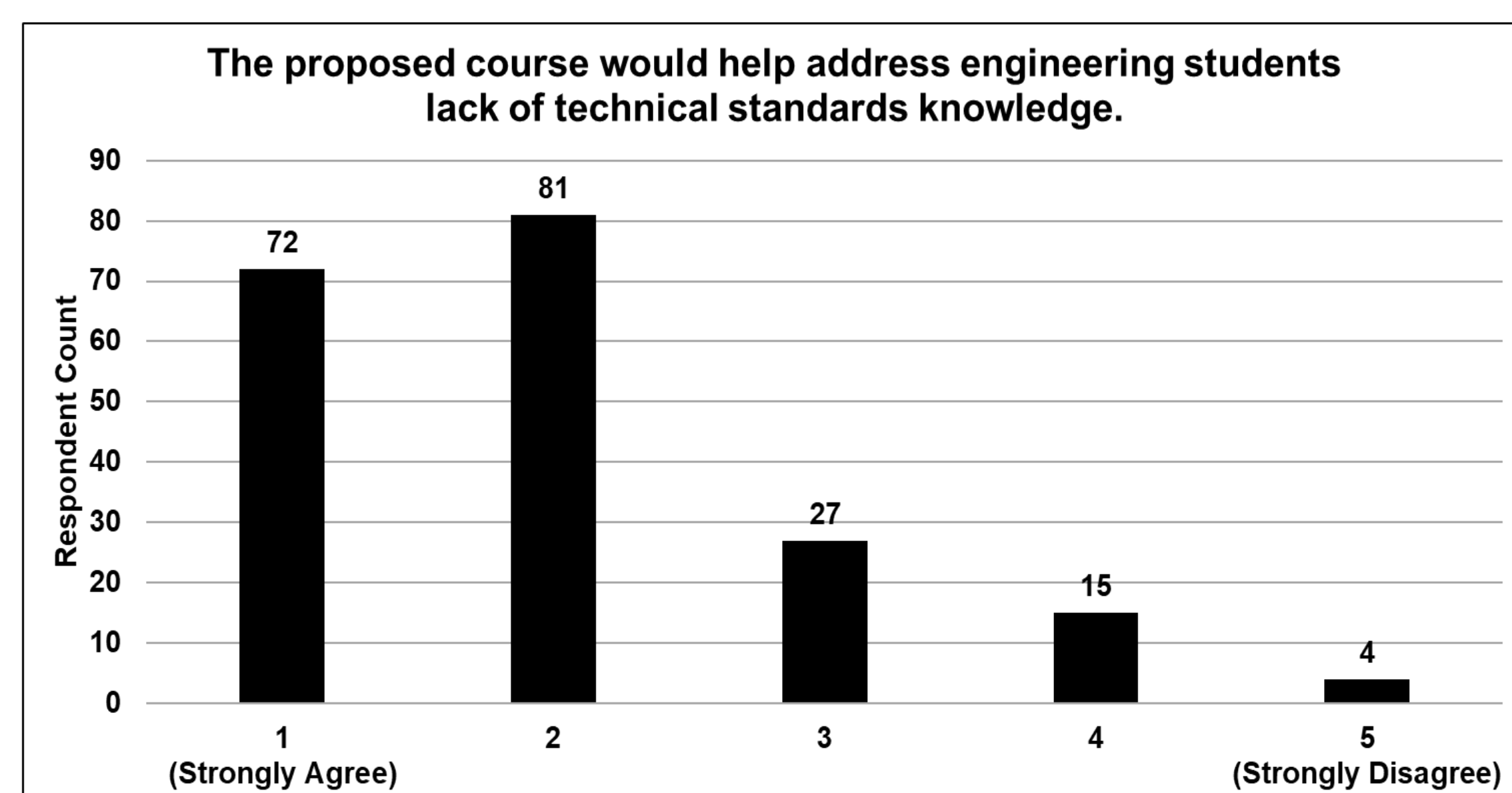
STANDARDS COMPREHENSION: Technical language and writing

TESTING AND CERTIFICATION: Conformity assessment and labels

DESIGN PROCESS: Practical applications and everyday use

IMPORTANCE: Integration in engineering

CALL TO ACTION: Awareness, involvement, and change



**Content Reviewers
Needed**



**Join the
Team!**

We are looking for reviewers to provide feedback on the curriculum structure, content, and delivery.

Technical standards education is greatly lacking in capstone design courses and undergraduate engineering programs.

Please check the **CONTENT** which is most desirable for you in a standards course.

