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The Potential of Industry Standards in Undergraduate Education

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Background:

A standard is a “document, established by consensus and approved by a recognized body, that provides for repeated use, rules, guidelines, or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context.”

-International Organization for Standardization (ISO)

Examples of Standards:

- Universal Serial Bus (USB) standards
- ASTM F2374-19 Standard Practice for Design, Manufacture, Operation, and Maintenance of Inflatable Amusement Devices
- Indiana Safety Code for Elevators, Escalators, Man Lifts and Hoists (based on many ANSI/ASME standards)

Industry standards have a significant impact on business as a means to eliminate waste, reduce costs, market products (e.g., for quality, safety, interoperability) and lessen liability. The ability to understand and use standards is a critical workplace competency for those engaged in business and industry. To have a workforce competent in the use of standards, higher education curricula must be developed to integrate standards education at appropriate points within the curriculum.

Methods:

Curriculum Mapping

Purdue’s Undergraduate Management Program: 38 syllabi for 26 courses

Texas A&M’s Bachelor of Business

Administration Program: 49 syllabi for 36 courses

Searched for terms such as:

- standard(s)
- standardize
- standardization
- NIST (National Institute of Standards and Technology)
- NISO (National Information Standards Organization)
- ANSI (American National Standards Institute)
- ISO (International Organization for Standardization)
- ASQ (American Society for Quality)
- PMI (Project Management Institute)

Results:

Of the 62 courses examined **only five (or 8%) specifically mentioned standards**; however, half of the courses examined were found to have potential for the integration of standards. However, many places in both the Purdue and Texas A&M curriculums have the potential for industry standards integration.

These areas include:

- Business and Management Strategy
- Business Law
- Ethics and Social Responsibility
- Human Resources
- Information Systems
- International / Global
- Marketing Process / Product Development
- Project Management

ELIMINATE WASTE

QUALITY

INTEROPERABILITY

REDUCE COSTS

SAFETY

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