

Engineering Standards

Mechanical Engineering Capstone Project Application

All capstone projects in mechanical engineering require the application of at least one engineering standard. Engineering standards permeate the profession, and all engineers must be able to apply them appropriately. From the early inception of a project, engineers should identify relevant standards and utilize them throughout the project.

In the ME481 project plan, students need to briefly discuss standards they will potentially use. The following are examples of the sort of detail generally appropriate for the plan:

In order to properly select heating and air conditioning systems, building codes for Multnomah County will be incorporated in the final design decisions.

Several components of the final design will have to withstand applied loads. In order to assure appropriate strength, materials defined by engineering standards will be selected.

In the ME482 final design report, at least one full paragraph (with the heading “Engineering Standards”) must be included. This section of the report should discuss the specifics of the standard:

- The organization issued the standard (ASME, ASHREA, Multnomah County, etc.)
- The specific name and number of the standard (SAE AMS6259b)
- The last revision date of the standard (if known)

Include a discussion of how this standard was applied to your project. For material standards, it will be important to discuss why this specific material was selected rather than any other. You may refer to a Design Decision Document (DDD) in your appendix to justify why this standard was chosen.