## Improving accessibility of Open Educational Resources for an Undergraduate Course in Engineering Mechanics: Statics

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Instructor use of an open educational resource for an undergraduate course in Engineering Mechanics: Statics

## Engineering Statics: Open and Interactive by Daniel W. Baker and William Haynes

URL: <u>https://engineeringstatics.org/</u> Alternate URL: <u>https://engineeringstatics.org/frontmatter.html</u>

In 2022, I began seeking low- and no-cost instructional materials for the engineering courses I teach. As part of that effort, I reviewed *Engineering Statics: Open and Interactive* by Daniel W. Baker and William Haynes. I decided to convert my course from a traditional textbook to this OER based on its quality and depth. During this time, I also began doing a Quality Matters (QM) review of my Statics course, which used the new OER book as the primary resource. As the QM review proceeded, one finding was that the OER book did not have descriptions on the images. I decided to contribute to the OER by writing descriptions (alt text) for the static images in the book. Coordinating with the authors, I added descriptions to all images in the source files for each chapter, and those were subsequently used in the next update of the online book.

After this work was completed, the major outcomes were: 1) the online textbook *Engineering Statics: Open and Interactive* now has descriptions of the images that can be read by a screen reader, 2) my engineering Statics course (ENGR 1080) at Century College now uses an OER text and does not require students to purchase a text or other materials, and 3) the new version of the course received an official Quality Matters certification.

I have now used the OER text for five sections of the course (as of the end of 2024). Additionally, I have created some supplemental materials and assignments that I am building upon with plans to eventually share them with other instructors. Some examples include individual guided notes for each chapter, collaborative notes for students to teach and learn from each other, and instructions for students to teach a homework problem to the class.

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