

It's a Matter of Truss: Designing Structures

Presented by:

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**May 24, 2018 (8:30 a.m. – 3:30 p.m.)
207 Sackett Building
Penn State University**

Engineering design requires knowledge of science and math to make informed decisions in order to obtain acceptable design solutions. This workshop uses a design challenge to motivate decision-making and to introduce teachers to an alternative way to teach science and math content in the context of engineering design. Teachers will learn about how trusses balance forces, and how to analyze and compare alternative designs. We will show how mathematical modeling is an essential tool for engineering design and teachers will use a free modeling software in the workshop. All teachers are welcome, but content is most applicable to engineering, technology, physics, and trigonometry teachers or those teaching about Newton's Laws and/or balanced forces.

- **Target Audience: Teachers of students grades 6-12.**
- **This workshop is FREE to all educators with ACT 48 (5.5 hours) provided free of charge.**
- **All i-STEAM workshops are aligned to the PA Science and Technology standards, Engineering Education Standards, and Next Generation Science Standards.**
- **A continental breakfast and lunch are provided by the Center for Science and the Schools (CSATS).**
- **Maximum enrollment is 24. Register online now to reserve a spot today at <http://csats.psu.edu/overview-of-csats-programs/academic-year-workshops/isteam-workshops>**
- **For more information email Matt Johnson at mjohnson@psu.edu or call 814-863-6607.**

Sponsored by:

The Center for Science and the Schools and National Science Foundation (CMMI: 1351591)



Photo: Santiago Calatrava's Museu do Amanha, Rio de Janerio