Oral Presentations -- The Basics

“How do you know that?”
Get what you want!
Image

- Credible
- Knowledgeable
- Trustworthy
- Open to criticism
- Decisive
- Interested
- Enthusiastic
- Believes in project
Presentation Organization
For ME4054

• Section 1
  – The problem you are trying to solve

• Section 2
  – Your proposed solution

• Section 3
  – Next steps

• Questions
  – Listen
“How do you know that?”

Present credible evidence

Cite credible sources
Assertion-Evidence Structure

• Headline states the assertion of the slide
• Slide body backs up the assertion with evidence
  – Relevant images
  – Experimental data
  – Basic equations
  – Product rendering
Assertion-Evidence Example

Sentence

Headline

Visual Evidence

Fillets reduce leading edge vortices in nature and in engineering

Fillet on dorsal fin of shark

Fillet on Seawolf submarine

Source: http://writing.engr.psu.edu/slides.html
People With Disabilities Are Active

- Wheelchair sports
- Disability Culture has driven demand for solutions
- ADA has provided legal clout
- Health care cost-effectiveness push by insurance companies reins in the pace
Example Showing a Design Choice

Composite materials are ideal for polar plates

Advantages
- Easy to shape
- Light in weight
- Resistant to corrosion

Disadvantages
- Low conductivity
- High cost (at present)

Source: http://writing.engr.psu.edu/slides.html
## Roof Chopping Data

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Roof Chopping Data

![Graph showing the relationship between weight and chopping time. The x-axis represents weight (lbs) ranging from 120 to 240, and the y-axis represents chopping time (min) ranging from 0 to 16. The data points are scattered, with a line showing the trend.](image-url)
Heavier People Chop Faster
Think Newspaper Headlines

• Two-thirds of Minnesotans: no public money for Vikes' stadium
• Chile military rolls out post-quake aid effort
• Postal Service's emerging model: No Saturday delivery
• Supreme Court muddies clean water act
• Effort to tighten Minnesota's gun law getting folks riled up

• University officials consider furloughs
• Professor ratings aid students in class selection
• OTC to showcase science technology
• Prominent agronomy professor to retire at age 70
• NCAA study spurs rule changes to protect athletes from injuries

Star Tribune and MN Daily, Feb. 2010
General Tips

• Respect audience intelligence
• Never apologize
• Anticipate questions
• Give important info first
• If running short, cut or stop rather than speed
• Presentation, not a speech
• Need not be a star
Suggestions for ME 4054

• Describe the problem
• Describe how people solve the problem now (current technology, prior art), and make clear what the gap is
• Describe the options
• Describe the selected design, including strengths and weaknesses
• Make it clear that team is using engineering analysis to drive the design
• Provide audience with a clear plan for future work, and detailed description of final project deliverables
More Suggestions For ME 4054

- Describe what your design *does* rather than what it *is*
- Audience needs to know the design is analysis driven, but does not need to know the details
- Keep slides simple; if slide is clear, you will be clear
- Avoid animations and movies unless essential to understanding the design
- ESL is OK
Most Important Suggestion for ME 4054

Convince the audience that your approach is worthy of further investment
Resources

• The Craft of Scientific Presentations
  – Available as an e-book in the UMN Library
• www.writing.engr.psu.edu/
• www.writing.engr.psu.edu/presentations/speaking.pdf
• ME 4054 on-line lecture notes