Musculoskeletal Biomechanics
BIOEN 520 | ME 527

Mini-Lab 2
Grant Writing and the Final Project
“Brain Teaser”...

If you have a 100kN load cell, what’s the difference in sampling resolution between a 12 bit and 16 bit DAQ board?

12-bit = $2^{12} = 4096$ discrete samples…

2.441N

16-bit = $2^{16} = 65,536$ discrete samples…

0.153N
[Q]: What’s a grant and how does it differ from a contract?
[Q]: Who funds grant applications?

- Federal Government (NIH, NSF, CDC, ...)
- State Government (WSDOT, DOH, ...)
- Private Foundations (CDRF, Snell, ACS, ...)
- Industry (Synthes, Spinal Dynamics, ...)

[Some are investigator initiated, and some are based on RFPs...]
**Grant Writing…**

**[Q]:** What do most grant applications have in common?

They tell a (compelling) “story”...

- What you hope to do
- Why it’s important
- Who will do it
- How will you do it
- How much it will cost
- When it will be done

Specific aims
Significance
Biographies
Research plan
Budget
Timeline
Grant Writing…

Keys for a successful grant...

- Follow the directions! (...don’t skip anything)
- Form a strong team
- Pilot data always helps! (...may not be req’d.)
- Hypothesis-driven
- Build on what you’ve done (…”P”-word ok)
- External reviewers (…friends/colleagues)
- Don’t be late!
Final Project...

Discuss handout...