**Cal Poly Pomona Electrical & Computer Eng.**

**EGR 4810 Project Design Principles and Applications**

**Quiz 6 – Engineers and the real world**

* Which day of the week the engineers in the Apollo 13 mission need to come back or they would not be able to?
  + Friday
* Why did people think MRIs are radioactive?
  + It was called Nuclear Magnetic Resonance and people associate the word nuclear with all things radioactive
* What natural disaster was reference in the lecture to highlight that people should understand cell phone conversations require a communications infrastructure (unlike walky talkies)?
  + Earthquake
* What engineering technique engineers use when they want to scale a small design to a large one?
  + Extrapolation
* What did a senator from Utah prevent the shuttle engineering team from doing?
  + Build rocket booster in one piece
* What environmental condition caused the Hubble telescope control system to malfunction?
  + Earth blocking it from the sun
* What did US law allow Ford to do in the 1970s Pinto case?
  + Free from liability after doing risk/benefit analysis
* What must an engineering team meet as well as the product specification requirements to ensure the product is successful in the market?
  + Meet the time to market
* Murphy’s law is not a real law of physics. Sometimes things that could go wrong don’t go wrong. How should the law impact engineer’s work?
  + Engineers should work with that in mind that every possible situation could happen and take them in mind