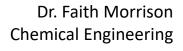


## Improving Processes, Reducing Error Rates:

### **The Checklist Process**





- ✓ Experts in aviation and medicine (high stakes) have reduced error rates by implementing checklists.
- ✓ The magic is not in the **checklist**—it's in the **process**
- ✓ This can work for *us* 
  - Doing better on exams (avoid the avoidable)
  - Spending time to build knowledge, skills of value
  - Practicing a good engineering process

The Checklist Manifesto: How to Get Things Right, Atul Gawande, (Picador, 2011)

*The Trick To Surviving A High-Stakes, High-Pressure Job? Try A Checklist*, Shankar Vedantam, Hidden Brain Podcast, 30 Oct 2017, www.npr.org/2017/10/30/559996276/the-trick-to-surviving-a-high-stakes-high-pressure-job-try-a-checklist, accessed 3Nov2017.

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#### **Improving Processes, Reducing Error Rates:** The Checklist Process

# ✓ Ask: What goes wrong

- On a test, for Wrong sig figs
  - example: Calculator error
    - Fail to answer the question asked
    - Ran out of time
- ✓ Ask: What can be done to NOT do that
  - 555
- ✓ Think ahead: What can be done to recover, if something goes wrong? Prepare for this.
  - 555

- ✓ The magic is not in the checklist—it's in the process
- ✓ This can work for us



#### **The Checklist Process**

✓ Ask: What goes wrong

✓ Ask: What can be done to NOT do that

✓ Think ahead: What can be done to recover, if something goes wrong? Prepare for this.

Simply making a checklist does not reliably work

What works is following this process ahead of time

For us: follow this process while studying