

**TITLE:**

Reducing Human Errors by Improving Operating Room Ergonomics

**FACULTY MENTOR NAME, EMAIL PHONE NUMBER**

Chris Giordano, MD  
[cgiordano@anest.ufl.edu](mailto:cgiordano@anest.ufl.edu)

Bruce Spiess, MD  
[bspiess@anest.ufl.edu](mailto:bspiess@anest.ufl.edu)

**FACULTY MENTOR DEPARTMENT**

Anesthesiology

**RESEARCH PROJECT**

*\*Multiple applicants welcome\**

Industrial engineers and organization psychologists have shown how inappropriate work room designs can reliably introduce error to every professional field. These fields of study have included nuclear and chemical plants, aircraft carriers, and spaceflight. Human Factors analysis and classification has become popularized by James Reason with his “Swiss-cheese” model of human error that depicts latent and active conditions that permit the eventual emergence of an accident and/or injury. A brief exploration of any operating room reveals a hub of technology ripe for better ergonomic Human Factor organization to mitigate errors. The goal is to improve human/system interaction by designing safe and effective systems using a blend of human engineering and industrial psychological principles. Interested medical students will become experts in Human Factor reasoning and ways to minimize accidents in the operating room by working with the experts in this field from Embry Riddle School. The knowledge and experience can and should translate to redesigning medical workspaces throughout the hospital.