

**SHORT COURSE**  
**THE THEORY OF DESIGNING CLINICAL TRIALS FOR DRUG DEVELOPMENT**

**Instructor:** William F. Rosenberger  
University Professor  
George Mason University

**Time:** April 26 – 29, 2022: 10:00 – 13:00

**Background:** Course in probability and in statistical inference  
Short course on Adaptive Designs in Clinical Trials (preferred)

**Assessment:** Problem sets will be given. Some problems will be done in class, others will be collected as the final exam.

**Topics:**

1. Inference on the binomial parameter  $p$ .
2. Dose-response models
3. Phase I clinical trials
4. Principle of randomization
5. Randomization tests
6. Sequential monitoring