Bioengineering/Physiology 6000

System Physiology I:
Cardiovascular, Respiratory, and Renal Systems

**Description**
The goal of this course is to understand the concepts and mechanisms of systemic cardiovascular physiology in human and a variety of animal systems. The course assumes a basic knowledge of human physiology. We build on that knowledge by examining the adaptation of other species to maintain homeostasis. We will also introduce pathophysiological mechanisms relevant for clinical diagnosis and therapy. There is substantial emphasis on engineering approaches, quantitative methods, and simulation.

**Essentials**
Class times: Wednesday, and Friday, 9:10-10:30
Classroom: MEB 2325
Labs: Friday, 1:00-4:00 in MEB 1480

**Instructors:** Frank Sachse (frank.sachse@utah.edu)
**TAs:** Azmi Ahmad (azmi.a.ahmad@utah.edu)
TBD

**Text:** Constanzo, Physiology, 5th Edition
Additional readings will be assigned throughout the course.

**Grading**
- Exams: 45% total from exams I, II, and III, worth 15% each
- Laboratory Exercises: 30%
- Semester Project: 20%
- Homework assignments: 5%