Vertebrate Physiology 437

1. Introductions
2. 3x5 cards
3. Syllabus
4. Photos
5. Vertebrate Physiology
   Integration
   Structure/Function
   Homeostasis
   Feedback
   Adaptation
   Literature

3x5 card

1. Discussion section: 9am or 2pm on Wed.
2. Name (and what you prefer to be called)
   - distinguishing characteristics
3. Email address
4. Year in school
5. Major
6. Relevant courses taken, or research projects, etc.
7. Why are you taking this course? / What do you hope to get out of it?

Vertebrate Physiology 437

Peer-peer introductions

What is their most pressing physiological question?

What will they be doing in 5 years?

Physiological or morphological features to describe them?

Other questions?

Vertebrate Physiology 437

Syllabus

Text - you may skip the non vertebrate material

Additional readings available on course website or electronic reserve

Vertebrate Physiology 437

Physiology

How animals function, how they work

Integrate many systems, levels, areas of biology, physics, chemistry, biochemistry, genetics, etc.

Hummingbirds
High-altitude geese
Endotherms in cold water
Freeze tolerance
Nitrogen excretion
Camels
Etc.
**Homeostasis**

"The coordinated physiological processes which maintain most of the [constant] states in the organism" (Randall et al. 2002, p. 12)

The role of physiology?

**milieu interior**

internal environment

scale?

---

The role of physiology?

- temperature
- salinity
- [glucose]
- pH
- [ion]
- pO₂

---

Regulator...

(value of variable in internal environment)

(value of variable in external environment)

Zone of stability where homeostasis is maintained

---

Conformer...

(value of variable in internal environment)

(value of variable in external environment)

Line of conformity

---

**Salmon...**

---

**Integration**

Structure/Function relationships