

□ **Lecture 1 (January 22, 2015)**

□ **Lecture series I**

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□ **Anatomy-** form

□ **Physiology-** function; how all work together

□ **Gross-** large, can pick up and view.... Brain, heart, biceps, bone

□ **Systemic-** organ systems- composed of like organs

□ **Organ-** made up of 2+ types of tissues, has an overall function

□ **Histology-** four major tissues, collection of like cells, structure of tissue

□ Epithelial cells- skin

□ Connective tissue

□ Muscular tissue

□ Nervous tissue

□ **Cell biology-** light/electron microscope; physical properties of light lose resolving power

(distinguish two points)

□ Smaller than wavelength of light must use electron microscope

□ Must use negative field... nucleus...ribonucleus...protein

□ **Biologically-** animals= humans; legally humans are not animals

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□ **Frontal/coronal-** front and back

□ **Transverse-** top and bottom

□ **Sagittal/median-** left and right

□ **Anatomical position-** supination, all have a reference point

□ **Para-** next to

□ **Cranial-** top of head, top part of skull

□ **Caudal-** tail, closer to tail bone

□ **Proximal/distal-** limbs

□ **Viscerce-** organs, all organs in chest/abdominal cavity

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▯ **Lecture I (January 27, 2015)**

- **Continued....**
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- **Chemical levels-** most atoms (4)
- Hydrogen
- Oxygen
- Carbon
- Nitrogen
- 95% of body made up of atoms
- Average adult 2/3 water
- **Cellular level-** skeletal muscle most abundant (cell made of molecules)
- **Tissue-** groups of individual cells
- **Organ level-** hollow organs, if muscular component to wall can move (not all blood vessels have smooth muscle)
- Capillary/blood vessel- holds something
- Move hot blood to surface of body, to cool self down
- Cold- will restrict blood from skin (conserve heat)
- **System-** blood circulates through system
- Cell in body no more than 2-3 cells away from being a capillary
- Cardiac muscle only in heart
- NO smooth muscle in heart
- **Organism-** all systems come together, if one system fades then all die