

# **PHYSIOLOGY:**

**It is the study of the function of organisms as integrated systems of molecules, cells, tissues, and organs in health and disease.**

**APS  
(American Physiology Society)**

# Study Tips

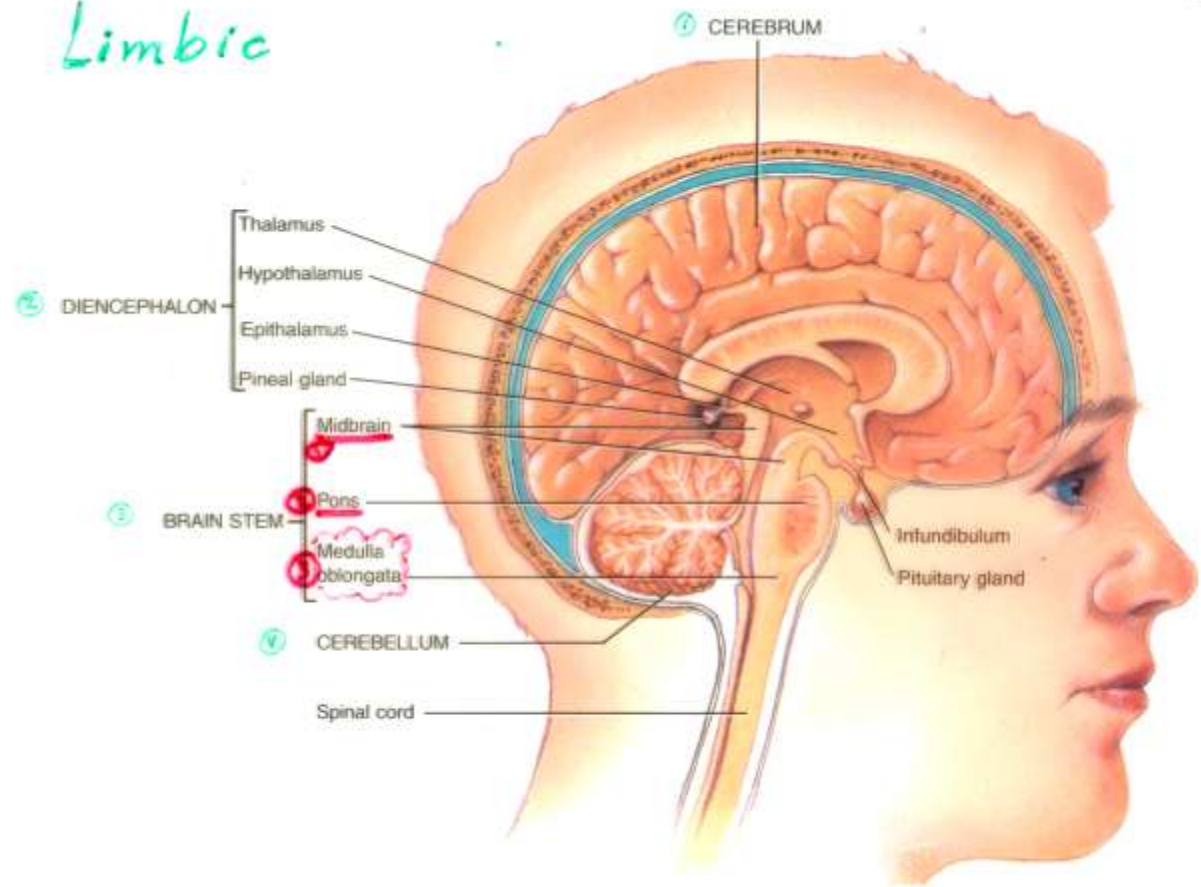
**Physiology is a difficult course, covering a large volume of challenging material.**

1. Come to class.
2. Come to class prepared.
3. Come to class prepared to participate.
4. Use learning outlines.
5. Don't put off clarification.
6. Practice for tests.
7. Don't fall into a destructive exam pattern.
8. Learn from mistakes.
9. Join a study group.
10. Take time to have **FUN**.

"To be playful and serious at the same time is possible,  
in fact it defines the ideal mental condition."

John Dewey

Limbic



Medial Aspect of the Brain in Sagittal Section, Fig# 14.1a  
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## THE CENTRAL NERVOUS SYSTEM

- Contains more than 100 billion neurons.
- 200 – 200,000 input to each neuron.
- Single output (axon) that branches.
- Dinosaur 1600Kg (0.07 Kg).....0.004 %
- Human 70Kg (1.4 Kg)..... 2 %



# The brain

- The brain weighs 2 % of body weight.
- The brain utilizes 20% of total energy expenditure.
- It contains about 100 billion neurons.
- Each neuron has about 10000 (200 – 200000) input.
- Single output (axon)
  
- brain is one of the most complex systems