This course is designed for the students of physical therapy. The materials covers the structures and functions of the nervous system, emphasizing the context related to human movement.

Upon the completion of this course, the students should be able to
1. illustrate and identify the brain structures;
2. describe how the sensory and motor system function;
3. appreciate the interrelation between anatomical structure and function of the nervous system;
4. understand the blood supply to the brain areas and the circulation of cerebrospinal fluid.
**Outline**

02/23  Introduction

03/02  Cerebral topography/ Midbrain, hindbrain, spinal cord (Ch. 2 & 3)

03/09  Meninges/ Blood supply of the brain (Ch. 4 & 5)

03/16  Innervation of muscles, joints, and skin (Ch. 10 & 11)

03/23  Spinal cord: ascending & descending (Ch. 15 & 16)

03/30  Brain stem/ Trigeminal nerve/ Facial nerve (Ch. 17, 21, 22)

04/13  Vestibular nerve (Ch. 19)

04/20  Written midterm exam

04/27  Reticular formation/ Thalamus (Ch. 24, 27)

05/04  Lab I

05/11  Cerebellum (Ch. 25)

05/18  Cerebral cortex (Ch. 29)

05/25  Lab II

06/01  Hemispheric asymmetries (Ch. 32)

06/08  Basal ganglia (Ch. 33) (by Professor Kao)

06/15  Lab III

06/22  Lab final exam

06/29  Written final exam

**References**

- FitzGerald MJT, Gruener G, Mtui E.: Clinical neuroanatomy and neuroscience (5th eds.) Elsevier Saunders, 2007

**Course Requirements**

- Attend the classes and participate in discussion.
- Lecture:
  - Class Participation: 10%, Midterm Exam: 45%, Final Exam: 45%.
- Lab:
  - Class Participation: 10%, Final Exam: 90%.

**Course Website**

[http://moodle.ncku.edu.tw](http://moodle.ncku.edu.tw)