

**Medical Neuroscience**  
**(SCBM 312) 2022**

**Total Credit:** 3 (2-2-5)

**Duration:** weeks (January 9<sup>th</sup> 2023 – April, 26<sup>th</sup> 2023)

**Lecture room:** P401      **Laboratory room:** MDL-3

period	Date	Time	h	Topics	Instructors
Lect 1	Mon, 9 Jan	9.00-10.00	1	Course Orientation and Introduction to overview in neuroanatomy	TK
Lect 2	Mon, 9 Jan	10.00-11.00	1	Concept in development of nervous system	NK
Lect 3	Wed, 11 Jan	9.00-11.00	2	Anatomical structures and organization of nervous system	NJ
Lab 1	Mon, 16 Jan	9.00-12.00	3	External morphology	NJ*, PP, YT, NK, RK
Lect 4	Wed, 18 Jan	9.00-11.00	2	Concept of internal structures, thalamic nuclei, and overview of their correlation to upstream and downstream structures	MSY
Lab 2	Mon, 23 Jan	9.00-12.00	3	Internal morphology I	MSY*, TK, KC, AS, RK
Lect 5	Wed, 25 Jan	9.00-11.00	2	Role of brainstem and cranial nerve nuclei	KC
Lab 3	Mon, 30 Jan	9.00-12.00	3	Internal morphology II	KC*, MSY, MSR, AS, RK
Lect 6	Wed 1 Feb	9.00-11.00	2	Meninges, ventricular system, CSF and intracranial circulatory system	KC
Lab 4	Mon, 6 Feb	9.00-12.00	3	Cerebrovascular system and ventricle	KC*, TK, NK, YT, RK
Lect 7	Wed, 8 Feb	9.00-12.00	2	Receptor of Perceptions, Somatosensory, Craniosensory systems (conscious and unconscious perceptions)	PP
Lab 5	Mon, 13 Feb	9.00-12.00	3	Internal structures related to somato, craniosensory pathway	PP*, CS, NK, NJ, RK
Lect 8	Wed, 15 Feb	9.00-11.00	2	Special sensation I (visual pathway and central control of eye movement)	CS
Lect 9	Mon, 20 Feb	9.00-11.00	2	Special sensation II (hearing and balance pathway)	CS
SG 1	Wed, 22 Feb	9.00-12.00	3	Small group conference I (Clinical case discussion in somato and craniosensory pathways)	Staff
Lab 6	Mon, 27 Feb	9.00-12.00	3	Special sense pathways (visual, hearing, balance)	CS*, PP, JS, AS, RK
	Wed, 1 Mar	9.00-11.00		Q&A and self-review	
	Wed, 8 Mar	9.00-12.00		Midterm examination (Lect 1-9)	TK, NJ, PP, KC, MSY, NK, CS, RK, WM
	Wed, 8 Mar	13.00-14.00		Midterm examination (Lab 1-6)	TK, NJ, PP, KC, MSY, NK, CS, RK, WM

Lect 10**	Mon, 13 Mar	9.00-11.00	2	Essential imaging techniques for neurological observation and the application in clinic	JS
Lect 11	Wed, 15 Mar	9.00-10.00	1	Special sensation III (taste and smell)	PP
Lect 12	Wed, 15 Mar	10.00-11.00	1	Spinal cord reflex	TK
Lect 13	Mon, 20 Mar	9.00-11.00	2	Basal ganglia	MSY
Lect 14	Wed, 22 Mar	9.00-11.00	2	Descending tract motor system	MSR
Lab 7	Mon, 27 Mar	9.00-12.00	3	Integration of external and internal structures related with basal ganglia and its pathways	MSY*, MSR, YT, NJ, RK
Lect 15	Wed, 29 Mar	9.00-11.00	2	Cerebellum	YT
Lab 8	Mon, 3 Apr	9.00-12.00	3	Motor pathway tracts and Cerebellum	MSR*, YT*, AS, JS, RK
Lect 16	Wed, 5 Apr	9.00-10.00	1	Hypothalamus	YT
Lect 17	Wed, 5 Apr	10.00-11.00	1	Limbic system	NJ
Lect 18	Mon, 10 Apr	9.00-11.00	2	Cerebral cortex and higher cortical function	PD
SG 2	Mon, 17 Apr	9.00-12.00	3	Small group: Clinical cases discussion (SG) in motor deficits	Staff
	Wed, 19 Apr			Q&A	
	Mon, 24 Apr			Self-review	
	Wed, 26 Apr	9.00-12.00		Final exam (Lect 11-18)	TK, NJ, YT, MSR, MSY, AS, RK, WM
	Wed, 26 Apr	13.00-14.00		Final exam (Lab 1-4, 7-8)	TK, NJ, YT, MSR, MSY, AS, RK, WM

Note: \*, Lab header

\*\*, this topic will be not included in the examination

#### Course coordinators

Asst. Prof. Thanapong Kruangkum (TK)

#### Room

K436

#### Tel

02-201-5866

Asst. Prof. Nopporn Jongkamolwivat (NJ)

AN103

#### Department Instructors

Assoc. Prof. Kulthida Chaithirayanon (KC)

B110

Assoc. Prof. Yotsawan Tinikul (YT)

B126

Asst. Prof. Chinnawut Suriyonplengsaeng (CS)

B116

Asst. Prof. Morakot Sroyraya (MSY)

AN105

Dr. Monsicha Somrit (MSR)

AN105

Dr. Phetcharat Phanthong (PP)

AN103

Dr. Nutmathee Kruepunga (NK)

AN109

Dr. Athikhun Suwannakhan (AS)

AN109

#### Guest Instructors

Assoc. Prof. Permphan Dharmasaroja (PD), Chakri Naruebodindra Medical Institute, Faculty of Medicine Ramathibodi Hospital, Mahidol University

Assoc. Prof. Jamorn Somana (JS), Department of Biochemistry, Faculty of Science, Mahidol University

### **Assisting staffs**

Ruenruthai Kaeopu (RK)

AN2-105

Waraporn Muebsri

B106

### **Materials That Will Be Provided**

- Lecture handout from PowerPoint presentation
- Formative and post-test evaluation online
- Outlines for the Anatomy Labs
- Cadaveric and picture specimen
- CT and MRI films

### **Student Assessment**

1. Written Exam (40%)
2. Practical Examination (30%)
3. Lab Post-test & Attendance (10%)
4. Report, Conference and Presentation (20%)