Course Syllabus

MBNS 651 Neuroendocrinology

Academic year 2023

Course ID and Name: MBNS 651 Neuroendocrinology

Course coordinator: Asst. Prof. Sukonthar Ngampramuan

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Instructors:

1. Prof. Emeritus Piyarat Govitrapong, Ph.D. (piyarat.gov@mahidol.ac.th)
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10. Dr. Jiraporn Panmanee, Ph.D. (jiraporn.pam@mahidol.ac.th)

Supporting Staff:

Somsong Phengsukdaeng

Credits: 2 (2-0-4)

Curriculum: Doctor of Philosophy Program in Neuroscience

Semester offering: First semester

Pre-requisites: No

Expected learning outcomes:

1. Explain the theoretical and experimental studies of the relationships between the nervous system and the endocrine glands (PLo2) P
2. Describe the neural controls of endocrine functions and their behavioral correlates to organs (PLo2) P
3. Discuss and present the research on neuroendocrinology aspects (PLO1, PLo5) I, P

Alignment of teaching and assessment methods to course learning outcome:

Course learning outcome	Teaching method	Assessment methods
1.Explain the theoretical and experimental studies of the relationships between the nervous system and the endocrine glands.	(1) Lecture (2) Class discussion	(1) Written examination (2) Reports (3) In-class discussion
2. Describe the neural controls of endocrine functions and their behavioral correlates to organs.	(1) Lecture (2) Class discussion	(1) Written examination (2) Reports (3) In-class discussion
3. Discuss and present the research on neuroendocrinology aspects	Paper assignment active learning Class discussion	(1) Student presentation With rubric score (2) In-class discussion

Course Description:

The theoretical and experimental studies of the relationships between the nervous system and the endocrine glands; neural controls of endocrine functions; endocrine and hormonal influences on the development and function of the nervous system and their behavioral correlates to the organs

Course schedule: April-May 2023

Time: 09.30-11.00/13.00-15.00

Room A 409 and online zoom meeting

No	Date	Time	Topic/Details	Lecturer
1.	Mon 30 Oct 2023	09.30-11.30	L1: Introduction to Neuroendocrinology	Sukonthar
2.		13.00-15.00	L2: Neuroendocrine regulation of growth hormone	Vorasith
3.	Wed 1 Nov 2023	09.30-11.30	L3: Neuroendocrine regulation of thyroid hormone	Vorasith
4.		13.00-15.00	L4: Neural regulation and functions of prolactin	Nattapon
5.	Fri 3 Nov 2023	09.30-11.30	L5: Neuroendocrine regulation of reproductive system (reproductive cycle, pregnancy, parturition, and menopause)	Kittikun
6.		14.00-16.00 (Thailand time)	L6: Regulation of the gonadotropic axis: beyond the GnRH neuron	Klosen
7.	Mon 6 Nov 2023	09.30-11.30	L7: Neural regulation and functions of posterior pituitary hormones	Kittikun
8.		13.00-15.00	L8: Neuroendocrine regulation of water balance fluid homeostasis, and food intake	Sukonthar
	Fri 10 Nov 2023	09.00-16.00	Midterm Examination	Somsong
9.	Mon 13 Nov 2023	09.30-11.30	L9: Neuroendocrine regulation of stress response	Nuanchan
10.		13.00-15.00	L10: Neuroendocrine correlates of aging	Banthit
11.	Wed 15 Nov 2023	09.30-11.30	L11: Neuroendocrine regulation of learning and memory	Jiraporn
12.		13.00-15.00	L12: Neuronal control of melatonin synthesis and functions	Piyarat
13.	Fri 17 Nov 2023	09.30-11.30	L13: Neuroendocrine regulation of biological clock and clock-controlled gene	Sujira

No	Date	Time	Topic/Details	Lecturer
14.		13.00-15.00	L14: Neuroendocrine regulation of immunity	Banthit
	Mon 20 Nov 2023	09.00-16.00	Final examination	Somsong
15.	Mon 27 Nov 2023	09.30-11.30	15. Neuroendocrinology journal presentation	Jiraporn

Assessment Criteria:

Student's achievements will be graded using symbols: A, B+, B, C+, C, D+, D and F based on the criteria as follows:

Percentage	Grade	Description
85-100	A	Excellent
80-84	B+	Very good
70-79	B	Good
60-69	C+	Fairly good
50-59	C	Fair
45-49	D+	Poor
40-44	D	Very poor
< 40	F	Fall

Date revised: 10 April 2023