Course syllabus

MBNS 606 Current Topics in Neuroscience

Academic year 2021

Course ID and Name: MBNS 606 Current Topics in Neuroscience

Course Coordinator: Prof. Banthit Chetsawang, Ph.D. Email: banthit.che@mahidol.ac.th

Instructors:

1. Prof. Banthit Chetsawang, Ph.D. (banthit.che@mahidol.ac.th)
2. Assoc. Prof. Nuanchan Chutabhakdikul, Ph.D. (nuanchan.chu@mahidol.ac.th)
3. Assoc. Prof. Vorasith Siripornpanich, M.D., Ph.D. (vorasith.sir@mahidol.ac.th)
4. Asst. Prof. Sujira Mukda, Ph.D. (sujira.muk@mahidol.ac.th)
5. Asst. Prof. Sukonthar Ngampramuan, Ph.D. (sukonthar.nga@mahidol.ac.th)
6. Asst. Prof. Kittikun Viwatpinyo, Ph.D. (kittikun.viw@mahidol.ac.th)
7. Lect. Chutikorn Nopparat, Ph.D. (m_chukorn@hotmail.com)
8. Lect. Jiraporn Panmanee, Ph.D. (jiraporn.pam@mahidol.ac.th)

Credits: 1 (1-0-2)

Curriculum: Master of Science Program in Neuroscience (elective course)

Doctor of Philosophy Program in Neuroscience (elective course)

Semester offering: First semester

Pre-requisites: None

Course learning outcomes:

Upon completion of the course, students are able to:

1. Relate knowledge and technology in neuroscience to current research or review topics in neuroscience. (PLO2) R
2. Summarize the critical pieces of knowledge or findings from research and review articles. (PLO3) I

Alignment of teaching and assessment methods to course learning outcome:

Course learning outcome	Teaching method	Assessment methods
1. Relate knowledge and technology in neuroscience to current research or review topics in neuroscience.	- active learning - class discussion	- In-class observation
2. Summarize the critical pieces of knowledge or findings from research and review articles.	- active learning - class discussion - short report	- In-class observation, - assessment of assigned work

Course description:

Interpretation; critical review and discussion of recent publications related to current knowledge and technology in neuroscience

Course schedule:

Date: Thursday

Time: Afternoon

Room: Class activity will be held onsite at MB Building or online platform through videoconferencing application, either through WebEx or Zoom depending on the situation of the COVID-19 pandemic in Thailand.

Date/Time	Topic/Details	Number of Hours	Class Activity/ Teaching Media	Lecturer
Sept 2, 2021 13.00-14.00	1. Neural network and machine learning	1	active learning, class discussion, short report	Kittikun
Sept 9, 2021 13.00-14.00	2. How does COVID-19 affect the brain?	1	active learning, class discussion, short report	Jiraporn
Sept 16, 2021 13.00-14.00	3. Potential Thai medicinal plants for neurodegenerative diseases	1	active learning, class discussion, short report	Banthit
Sept 23, 2021 11.00-12.00	4. Exercise and memory function	1	active learning, class discussion, short report	Banthit
Sept 23, 2021 13.00-14.00	5. How are the gut and brain Connected?	1	active learning, class discussion, short report	Sukonthar
Sept 30, 2021 13.00-14.00	6. Brain Nutrients	1	active learning, class discussion, short report	Vorasith
Oct 7, 2021 13.00-14.00	7. Brain Science and education	1	active learning, class discussion, short report	Nuanchan
Oct 14, 2021 13.00-14.00	8. Is caffeine good for your brain?	1	active learning, class discussion, short report	Jiraporn
Oct 21, 2021	9. How does using your	1	active learning, class	Sujira

13.00-14.00	phone at night impact your sleep quality		discussion, short report	
Oct 28, 2021 13.00-14.00	10. The neuroscience of mindfulness meditation	1	active learning, class discussion, short report	Chutikorn
Nov 4, 2021 13.00-14.00	11. Brain development during Adolescent	1	active learning, class discussion, short report	Nuanchan
Nov 11, 2021 13.00-14.00	12. How sugar affects the brain?	1	active learning, class discussion, short report	Sujira
Nov 18, 2021 13.00-14.00	13. Neurobiology of suicide	1	active learning, class discussion, short report	Chutikorn
Nov 25, 2021 13.00-14.00	14. Wearable technology: How and why it works	1	active learning, class discussion, short report	Sukonthar
Dec 2, 2021 13.00-14.00	15. Neuro-design	1	active learning, class discussion, short report	Kittikun

Mode of teaching: The teaching and discussion will take place in the classroom or through a videoconferencing application, either through WebEx or Zoom.

Assessment Criteria:

Individual assignment	20%
Group discussion and participation	60%
Class attendance	20%

Student's achievements will be graded using symbols: A, B+, B, C+, C based on the distribution of student's scores from the whole course.

Grading system

Final total score (100%)	85 to 100	A	GPA 4.0
	80 to 84	B+	GPA 3.5
	70 to 79	B	GPA 3.0
	60 to 69	C+	GPA 2.5
	50 to 59	C	GPA 2.0
	45 to 49	D+	GPA 1.5
	40 to 44	D	GPA 1.0

Date revised: September 3, 2021

Rubric for evaluation of classroom discussion (total score = 10)

Criteria	Excellent (score = 4)	Adequate (score = 3)	Fair (score = 2)	Poor (score = 1)
Engagement level	Actively engages with in-class discussion by offering quality ideas, asking appropriate questions, inviting comments from other students, and effectively summarizes the main ideas of a topic.	Often engages with in-class discussion by proposing ideas or commentaries, asking relevant questions and helps identify important points of a topic.	Passively participates in an in-class discussion by occasionally gives opinions or responds to questions when being asked.	Fails to contributes to class discussion and does not helps others in identifying main points.
Preparedness		Readily shows preparedness for class discussion with assignments, references, or other learning materials. Capable of explaining basic knowledge relevant to questions during the discussion.	The student is prepared for class discussion with assignments or learning materials. The student can answer some questions using prepared knowledge.	The student does not prepare for class discussion and fails to answer questions.
Attitude		The student shows a consistently positive attitude toward other people during discussion and supportive of other's ideas.	Student sometimes participates in-class discussion and occasionally supports other's ideas.	The student rarely participates in class discussions and shows disruptive behaviors.

Date revised: August 26, 2021