Course ID and Name: MBNS 603 Neuropsychopharmacology

Course Coordinator: Assoc. Prof. Sujira Mukda

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Instructors:

1. Prof. Dr. Piyarat Govitrapong
2. Prof. Dr. Banthit Chetsawang
3. Assoc. Prof. Dr. Vorasith Siripornpanich
4. Assoc. Prof. Dr. Sujira Mukda
5. Asst. Prof. Dr. Jiraporn Panmanee
6. Lect. Dr. Siraprapa Boobphahom
7. Lect. Dr. Ittipat Meewan

Supporting Staff:

1. Ms. Somsong Phengsukdaeng
2. Ms. Sasithorn Prommet

Credits: 2 (2-0-4)

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

Doctor of Philosophy Program in Neuroscience (required course for student from B.Sc.)

Semester offering: Second semester

Pre-requisites: (none)

Course learning outcomes (CLOs):

1. Demonstrate learning and working integrity (including honesty, discipline, punctuality, and obedience) (Aligns with PLO1(R))
2. Explain the principal concept of pharmacology and pharmacology relation with psychiatric disorders in the nervous system (Aligns with PLO2(R))
3. Explain the possible causes of neurological disorders integrating with psychological effect and the treatment, and translate scientific evidence from clinical symptom and pathology of disease to mechanism of disease and drug approach (Aligns with PLO3(R))
4. Demonstrate proper interpersonal skills and responsibility. (Aligns with PLO4(R))
5. Apply literacy and ICT skills to help accomplish the assigned tasks. (Aligns with PLO5(R))

Alignment of teaching and assessment methods to course learning outcome:

Course learning outcome	Teaching method	Assessment method
1. Demonstrate learning and working integrity (including honesty, discipline, punctuality, and obedience)	1. Pre-session overview	1. Class Attendance (complete and punctual?) 2. Examination (cheating?) 3. Assignments (plagiarism?)
2. Explain the principal concept of pharmacology and pharmacology relation with psychiatric disorders in the nervous system	1. Lecture 2. In-class discussion 3. Assignments/ Exercises	1. Written examination 2. Assessment of assigned work/ exercises
3. Explain the possible causes of neurological disorders integrating with psychological effect and the treatment, and translate scientific evidence from clinical symptom and pathology of disease to mechanism of disease and drug approach	1. Lecture 2. In-class discussion 3. Assignments/ Exercises	1. Written examination 2. Assessment of assigned work/ exercises
4. Demonstrate proper interpersonal skills and responsibility	1. Assignments/ Exercises	1. Performance in social skills 2. Assignments (submitted on time?)
5. Apply literacy and ICT skills to help accomplish the assigned tasks.	1. Assignments/ Exercises	1. Assessment of assigned work

Course description:

Drug actions on the nervous system comprising areas of the investigation of critical importance to science and medicine; the mechanisms by which drugs alter brain functions; medications used to treat a wide range of neurological and psychiatric disorders as well as drugs of abuse.

Course schedule:

Date: Monday, Wednesday, and Friday

Time: 10:00 – 12:00 and 13:30- 15:30

Room: TBA

This topic will be teaching online via Zoom:

https://zoom.us/j/94972507934?pwd=PakBgbSSenDZZNzFZEaqgPUx9aQTCF.1

Meeting ID: 949 7250 7934

Passcode: MBNS603

Teaching schedule

MBNS 603 Neuropsychopharmacology

Course duration: 12 January 2026 – 6 February 2026

Course Coordinator: Assoc. Prof. Sujira Mukda

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	Date	Time	Topic	Lecturer
0	12 Jan 2026	09:30-10:00	Orientation to neuropsychopharmacology	Sujira*
1		10:00-12:00	**L1:** Basic principles of neuropsychopharmacology	Piyarat*
2		13:30-15:30	**L2:** Drugs for the treatment of movement disorders	Sujira[1]
3	14 Jan 2026	10:00-12:00	**L3:** ANS: Cholinergic drugs	Piyarat*
4		13:30-15:30	**L4:** Antidepressants and anxiolytics, sedative, hypnotics	Jiraporn[1]
5	16 Jan 2026	10:00-12:00	**L5:** Drugs for cognitive disorders and Alzheimer's disease	Jiraporn[1]
6		13:30-15:30	**L6:** Narcotic & non-narcotic analgesics	Jiraporn[1]
Exam I	19 Jan 2026	09.00-16.00	**Exam I: 5 topics (L1 – L5)**	Sujira/ Somsong[1]
7	21 Jan 2026	10:00-12:00	**L7:** ANS: Adrenergic drugs	Piyarat*
8		13:30-15:30	**L8:** Drugs for the treatment of sleep disorders	Sujira[1]
9	23 Jan 2026	10:00-12:00	**L9:** Neuroleptics	Piyarat*
10		13:30-15:30	**L10:** Drugs for the treatment of brain hyperexcitation: Epilepsy and migraine	Vorasith[1]
Exam II	26 Jan 2026	09.00-16.00	**Exam II: 5 topics (L6 – L10)**	Sujira/ Somsong[1]
11	28 Jan 2026	10:00-12:00	**L11:** Reinforcement and addictive disorders	Sujira[1]
12		13:30-15:30	**L12:** Drugs for brain development disorders: ADHD and autism	Vorasith[1]
13	30 Jan 2026	10:00-12:00	**L13:** Molecular strategies in neuropsychopharmacology, gene therapy and pharmacogenomics	Banthit[1]
14		13:30-15:30	**L14:** Computer-aided drug design and discovery for CNS disorders	Ittipat[1]
15	02 Feb 2026	10:00-12:00	**L15:** Drug delivery	Siraprapa[1]

	Date	Time	Topic	Lecturer
Exam III	04 Feb 2026	09.00-12.00	**Exam III: 5 topics (L11 – L15)**	Sujira/ Somsong[1]
	xx Feb 2026	09.00-12.00	**Student presentation:** Current understanding of CNS drugs	Lecturers[1]

Assessment Criteria:

Assessment criteria	Assessment method	Scoring rubrics
Written examination/ Quiz / Oral comprehensive examination (55%)	(1) Multiple choices questions (2) Short essay questions (3) Quiz after the class	Scoring directly from true/false answer
Presentation of assigned topic (25%)	(1) Short presentation	(1) Information quality and organization of topic presented (2) Verbal and non-verbal communication and English proficiency (3) Critical thinking (4) Visual tools
Class attendance (10%)	(1) Numbers of classes signed-in (2)	Scoring directly from times of signing in
Participation in in-class discussion (10%)	(1) Direct observation	In-class discussion

Student's achievement 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: 26 December 2025

MBNS 603 Neuropsychopharmacology 2/2024

"Current understanding of CNS drugs"

Scoring Rubric for Oral Presentations (evaluated by peers and lecturers)

Category	Scoring Criteria	CLO Alignments	Total Points	Score
Organization (15 points)	Clearly defines the background and significance of the research.	CLO2	10	
	Information is presented in a logical sequence that enhances understanding.		5	
Content (40 points)	Introduction is engaging, clearly states the problem, and establishes a framework for the presentation.	CLO2 CLO3	5	
	Technical terms are well-defined and explained.		5	
	Major points of the presentation are effectively summarized.		10	
	Discusses potential weaknesses or limitations in findings.		10	
	Provides a clear "take-home" message for the audience.		5	
	Presenter is responsive to audience questions and engages in meaningful discussion.		5	
Presentation Skills (25 points)	Speaker uses a clear, audible voice that is easy to understand.	CLO5	5	
	Delivery is poised, controlled, and smooth, maintaining audience interest.		5	
	Visual aids are well-prepared, informative, effective, and enhance understanding without being distracting.		5	
	Graphs and figures are clear, relevant, and easy to interpret.		5	
	Length of presentation adheres to assigned time limits (approximately 15 minutes).		5	
Interpersonal Skills (10 points)	Actively engages with the class during the presentation.	CLO4	5	
	Demonstrates proper interpersonal skills by interacting thoughtfully with other students' presentations and contributing to discussions.		5	
Integrity and Responsibility (10 points)	Demonstrates integrity through honesty in presenting information.	CLO1	5	
	Shows discipline and punctuality in preparation and delivery of the presentation.		5	
Score	Total Points		100	

Total Score: /100

Scoring Interpretation:

90-100 points:	Excellent	– Exceeds expectations in all areas.
80-89 points:	Good	– Meets expectations with minor areas for improvement.
70-79 points:	Satisfactory	– Meets basic requirements but needs improvement in several areas.
60-69 points:	Needs Improvement	– Does not meet several key criteria; significant revision needed.
Below 60 points:	Unsatisfactory	– Fails to meet basic expectations; requires major revisions or re-presentation.