

Course Syllabus
MBNS603 Neuropsychopharmacology
Academic year 2023

Course ID and Name: MBNS603 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. Lect. 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 other fields or B.Sc.)

Semester offering: Second semester

Pre-requisites: (none)

Expected learning outcomes:

1. Demonstrate learning and working integrity (including honesty, discipline, punctuality, and obedience) (Aligned with PLO1(R))
2. Explain the principal concept of pharmacology and pharmacology relation with psychiatric disorders in the nervous system (Aligned 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 (Aligned with PLO3(R))
4. Demonstrate proper interpersonal skills and responsibility. (Aligned with PLO4 (R))
5. Apply literacy and ICT skills to help accomplish the assigned tasks. (Aligned 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: 09:30 – 11:30 / 13:00- 15:00

Room: Online via Zoom

Course schedule

MBNS603 Neuropsychopharmacology

Session 1: 1 May 2023 – 25 May 2023

Session 2: 7 August 2023 – 16 August 2023

Course Coordinator: Assoc. Prof. Sujira Mukda

Tel: 02-441-9003-7 ext. 1206, 1437

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Session 1: 1 May 2023 – 25 May 2023

	Date	Time	Topic	Lecturer
0	1 May 2023	09.00-09.30	Orientation to neuropsychopharmacology	Sujira
1		09.30-11.30	L1: Basic principles of neuropsychopharmacology	Banthit
2		13.00-15.00	L2: Drugs for the treatment of movement disorders	Sujira
3	3 May 2023	09.30-11.30	L3: Drugs for the treatment of sleep disorders	Sujira
4		13.00-15.00	L4: Reinforcement and addictive disorders	Sujira
5	8 May 2023	09.30-11.30	L5: Antidepressants and anxiolytics, sedative, hypnotics	Jiraporn
6		13.00-15.00	L6: Drugs for cognitive disorders and Alzheimer's disease	Jiraporn
Exam I	12 May 2023	09.00-16.00	Exam I: 5 topics (L2 – L6)	Sujira/ Somsong
7	15 May 2023	09.30-11.30	L7: Narcotic & non-narcotic analgesics	Jiraporn
		13.00-15.00	L8: Molecular strategies in neuropsychopharmacology, gene therapy and pharmacogenomics	Banthit
11	17 May 2023		- Royal Ploughing Ceremony Day -	
12	19 May 2023	09.30-11.30	L9: Computer-aided drug design and discovery for CNS disorders	Ittipat
13		13.00-15.00	L10: Drug delivery	Siraprapa
Exam II	22 May 2023	09.00-16.00	Exam II: 4 topics (L7 – L10)	Sujira/ Somsong
	25 May 2023	09.00-12.00	Student presentation: Current understanding of CNS drugs	RCN Staff

Session 2: 7 August 2023 – 16 August 2023

	Date	Time	Topic	Lecturer
0	07 Aug 2023	09.00-09.30	Orientation to neuropsychopharmacology	Sujira
1		09.30-11.30	L1: Basic principles of neuropsychopharmacology	Piyarat
2		13.00-15.00	L11: ANS: Cholinergic drugs	Piyarat
3	09 Aug 2023	09.30-11.30	L12: ANS: Adrenergic drugs	Piyarat
4		13.00-15.00	L13: Drugs for the treatment of brain hyperexcitation: Epilepsy and migraine	Vorasith
	11 Aug 2023	09.30-11.30	L14: Neuroleptics	Piyarat
		13.00-15.00	L15: Drugs for brain development disorders: ADHD and autism	Vorasith
Exam III	15 Aug 2023	09.00-16.00	Exam III: 6 topics (L1, L11-L15))	Sujira/ Somsong

Assessment Criteria:

Assessment criteria	Assessment method	Scoring rubrics
Written examination (70%)	(1) Multiple choices questions (2) Short essay questions	Scoring directly from true/false answer
Oral comprehensive examination (10%)	(1) Answer questions provided by lecturers orally.	Scoring directly from true/false answer
Presentation of assigned topic (10%)	(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 and participation in in-class discussion (10%)	(1) Numbers of classes signed-in (2) Direct observation	Scoring directly from times of signing in

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: 19 April 2023