

Course Syllabus
SIPS 525
Academic Year 2023
Department of Physiology
Faculty of Medicine Siriraj Hospital, Mahidol University

Course ID and name:	SIPS 525: Seminar in Medical Physiological Research
Course coordinator:	Assoc. Prof. Reawika Chaikomin, M.D., Ph.D.
Instructors:	Assoc. Prof. Dr.Sorachai Srisuma MD, PhD Assist. Prof. Dr.Sompol Tapechum MD, PhD Assoc. Prof. Dr.Wattana Watanapa MD, PhD Assoc. Prof. Dr.Chailerd Pichitpornchai MD, PhD Dr.Luecha Boontaveekul MD Assoc. Prof. Dr.Suwattanee Kooptiwut MD, PhD Assoc. Prof. Dr.Panapat Uawithya MD, PhD Assoc. Prof. Dr.Narawut Pakaprot MD, PhD Assoc. Prof. Dr.Reawika Chaikomin MD, PhD Assoc. Prof. Dr.Chantacha Sitticharoon MD, PhD Assist. Prof. Dr.Yodying Dangprapai MD, PhD Dr.Thaksaon Kittipassorn MD, PhD Dr.Rujapope Sutiwisesak MD, PhD Dr.Patamat Nitiwarangoon MD, PhD Dr.Thanus Teeratitayang-gool MD
Credits:	1 (1-0-2) (lecture – laboratory – self-study)
Curriculum:	Masters of Science Program in Medical Physiology
Course type:	<input type="checkbox"/> Core <input checked="" type="checkbox"/> Required <input type="checkbox"/> Electives
Semester offering:	2/2023
Prerequisite:	None
Date of Latest Revision:	5 January 2024

Course Description:

Analysis of recent research publications in medical physiology, scientific knowledge, research ethics, rationales, conceptual frameworks, experimental designs, data

interpretation, prediction of potential problems and solutions, strength and opportunity for improvement, research planning in biomedicine and medical physiology

Course-level Learning Outcomes (CLOs)

Upon completion of this course, students are able to:

1. Conceptualize research problems, ideas, hypotheses and experimental designs into physiological/biomedical research framework.
2. Criticize and discuss the correctness and reliability of the information from research articles of interest. Develop the written grant proposals with clear and testable hypotheses, objectives, research plans, appropriate budgets and appropriate ethical considerations.
3. Analyze the data acquired from the research interest.
4. Present the acquired data in a correct format

Constructive Alignment of CLOs and Program's ELOs

CLOs	ELO1	ELO2	ELO3	ELO4
1. Conceptualize research problems, ideas, hypotheses and experimental designs into physiological/biomedical research framework.	P	P	R	P
2. Criticize and discuss the correctness and reliability of the information from research articles of interest	P	P	R	P
3. Analyze the data acquired from the research interest	P	P	R	P

4. Present the acquired data in a correct format	P	P	R	P
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Remarks: Show the level of the course management with the symbols I, R, P, and M.

Program's Expected Learning Outcomes

1. Analyze the different concepts, theories, hypotheses related to medical physiological field of interest.
2. Conduct extensive and independent research in medical physiology that expands the frontiers of knowledge in the field of an area of interest.
3. Criticize the research work with a detailed and leading-edge knowledge of physiology in an area of interest.
4. Disseminate new insights of medical physiology to peers and the scientific community at international level.

Course Schedule and teaching/assessment plan

No.	Topic	Hours			CLOs	Teaching & learning strategy	Assessment (in-class)	Lecturers
		Lecture	Laboratory	Self Study				
1	Orientation and overview: Preparation of Research Presentation	1	-	2	1,2,3	Lecture	Feedback, response to questions	Dr.Sorachai
2	Presentation: How to develop your own style 1	1	-	2	1,3	Discussion	Feedback	Dr.Yodying
3	Presentation: How to develop your own style 2	1	-	2	1,3	Discussion	Feedback	Dr.Yodying
4	Scientific article presentation preparation 1	3	-	6	1,2	Discussion	Feedback	Faculty
5	Scientific article presentation 1	1	-	2	1,2	Presentation	Feedback, response to questions	Dr.Reawika
6	Scientific article presentation participation 1	1	-	2	2	Presentation & participation	Inquiry, comment	Faculty
7	Scientific article presentation participation 2	1	-	2	2	Presentation & participation	Inquiry, comment	Faculty
8	Scientific article presentation preparation 2	3	-	6	1,2	Discussion	Feedback	Faculty
9	Scientific article presentation 2	1	-	2	1,2	Presentation	Feedback, response to questions	Dr.Reawika
10	Scientific article presentation participation 2	1	-	2	2	Presentation & participation	Inquiry, comment	Faculty

11	Scientific article presentation participation 3	1	-	2	2	Presentation & participation	Inquiry, comment	Faculty
Total hours of the study		15	0	30				

Course Assignments

- Two presentations of research articles

Assessment Criteria

- Rubric assessment for preparation of the presentation
- Rubric assessment for presentations of research articles
- Rubric assessment for appraisal and inquiries for other research presentations

Appeal Procedure

- An appeal can be made by a student to the course coordinator or the graduate program director.