

Course Syllabus
SIPS 601/602
Academic Year 2025
Department of Physiology
Faculty of Medicine Siriraj Hospital, Mahidol University

Course ID and name:	SIPS 601/2 Seminar in Medical Physiology I/II
Course coordinator:	Assoc. Prof. Suwattanee Kooptiwut, M.D., Ph.D.
Instructors:	Assoc. Prof. Suwattanee Kooptiwut, M.D., Ph.D. Assoc. Prof. Sorachai Srisuma, M.D., Ph.D. Assoc. Prof. Narawut Pakaprot, M.D., Ph.D. Assoc. Prof. Reawika Chaikomin, M.D., Ph.D. Assoc. Prof. Chantacha Sitticharoon, M.D., Ph.D. Assist. Prof. Sompol Teapchum, M.D., Ph.D. Lecturer Rujapope Sutiwisesak, M.D., Ph.D.
Credits:	1 (1-0-2) (lecture – laboratory – self-study)
Curriculum:	Doctor of Philosophy in Medical Physiology
Course type:	<input type="checkbox"/> Core <input checked="" type="checkbox"/> Required <input type="checkbox"/> Electives
Semester offering:	1-2/2025
Prerequisite:	None
Date of Latest Revision:	05/08/2025

Course Description:

Seminar presentation of current research articles of medical physiology, current concept, rationale and significance, research question, experimental approach, related technologies, result interpretation, discussion of impact of the studies on the progress of biomedicine and medical physiology

Course-level Learning Outcomes (CLOs)

Upon completion of this course, students are able to:

1. Present a well-organized and coherent review of scientific literature relevant to a topic of interest.
2. Interpret key physiological concepts and supporting evidence from current literature.

3. Communicate scholarly content effectively in a professional academic forum, using appropriate visuals, clear language, and confident delivery.
4. Respond to critical questions, demonstrating depth of knowledge and the ability to elaborate on physiological concepts.

Constructive Alignment of CLOs and Program's ELOs

CLOs	ELO1	ELO2	ELO3	ELO4
1. Present a well-organized and coherent review of scientific literature relevant to a topic of interest.	P			P
2. Interpret key physiological concepts and supporting evidence from current literature.	P	P		
3. Communicate scholarly content effectively in a professional academic forum, using appropriate visuals, clear language, and confident delivery.			P	P
4. Respond to critical questions, demonstrating depth of knowledge and the ability to elaborate on physiological concepts.			P	P

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	Research article search and screening 1	1	-	2	2	Consult with the advisor to identify and select research articles of interest.	Reflection / Question	Advisor
2	Preliminary article discussion 1	2	-	4	2,4	Analyze and discuss the methodology and scientific content.	Reflection / Question	Advisor
3	Preliminary outline and slide design 1	1	-	2	1,3	Prepare a detailed outline and initial slides (including rationale, figures, tables, conclusions).	Reflection / Question	Advisor
4	First rehearsal 1	1.5	-	3	1,3	Present a full draft seminar to the advisor or lab group.	Reflection / Question	Advisor
5	Second rehearsal 1	1	-	2	1,3,4	Refine and polish the presentation, focusing on transitions, timing, and readiness for Q&A.	Reflection / Question	Advisor
6	Seminar presentation 1	1	-	2	1,2,3,4	Deliver the presentation.	Reflection / Question	Faculty
7	Research article search and screening 2	1	-	2	2	Consult with the advisor to identify and select research articles of interest.	Reflection / Question	Advisor
8	Preliminary article discussion 2	2	-	4	2,4	Analyze and discussion the methodology and scientific content.	Reflection / Question	Advisor
9	Preliminary outline and slide design 2	1	-	2	1,3	Prepare a detailed outline and initial slides (including rationale, figures, tables, conclusions).	Reflection / Question	Advisor
10	First rehearsal 2	1.5	-	3	1,3	Present a full draft seminar to the advisor or lab group.	Reflection / Question	Advisor

11	Second rehearsal 2	1	-	2	1,3,4	Refine and polish the presentation, focusing on transitions, timing, and readiness for Q&A.	Reflection / Question	Advisor
12	Seminar presentation 2	1	-	2	1,2,3,4	Deliver the presentation.	Reflection / Question	Faculty
Total hours of the study		15	-	30				

Course Assignments

- Oral presentations: 2 times
- Each presentation will be 45-60 minutes, followed by a 30-minute Q&A session.

Assessment Criteria

- Preparation and presentation 1 (50%)
 - Preparation evaluation by the major advisor using the preparation evaluation rubric, conducted after the second rehearsal (10%)
 - Presentation evaluation by the faculty, including the major advisor, using the presentation evaluation rubric, conducted after the seminar presentation (40%)
- Preparation and presentation 2 (50%)
 - Preparation evaluation by the major advisor using the preparation evaluation rubric, conducted after the second rehearsal (10%)
 - Presentation evaluation by the faculty, including the major advisor, using the presentation evaluation rubric, conducted after the seminar presentation (40%)

Preparation evaluation rubric

Criteria	4	3	2	1	0	Weight	CLOs addressed
Depth and relevance of literature selected	Comprehensive and highly relevant literature; demonstrates critical engagement with key sources.	Relevant and appropriate selection of literature; generally well-integrated.	Adequate selection with some gaps or less relevant material.	Limited literature review; misses key references or includes irrelevant sources.	No evidence of relevant literature review.	x1	CLO2
Clarity and coherence of content organization	Content is logically organized with clear progression of ideas; easy to follow.	Organization is mostly logical; minor areas of confusion.	Basic structure present; some disjointed or unclear sections.	Organization is weak or difficult to follow.	No clear structure or logical flow.	x1	CLO1
Conceptual understanding of the topic	Demonstrates deep understanding of physiological concepts and their interconnections.	Shows good understanding with few conceptual inaccuracies.	Understands basic concepts but lacks integration or depth.	Frequent inaccuracies or unclear explanations.	Major misconceptions or little understanding evident.	x1	CLO4
Slide and visual design	Slides are professional, well-designed, and enhance understanding.	Slides are clear and support the presentation.	Slides are adequate but may be overly text-heavy or visually inconsistent.	Poor visual design; slides distract from content.	Slides not prepared or highly inappropriate.	x1	CLO3

Presentation evaluation rubric

Criteria	4	3	2	1	0	Weight	CLO addressed
Organization	Very well, easy to follow	Well, easy to follow	Fair, able to follow	Poor, hard to follow	Loss of organization, unable to follow	x2	CLO1
Able to elaborate and interpret	Outstanding, thorough with supporting evidence and discussion	Appropriate with supporting evidence and discussion	Some with supporting evidence and discussion	Limited, insufficient supporting evidence and discussion	Lacking without supporting evidence and discussion	x2	CLO2
Use of diagram/graphics	Professional use for reinforcing presentation ; easy to read	Use for relating text and presentation	Occasional use for supporting text and presentation	Occasional use; too much text	No use, too much text; lack of interest to follow	x1	CLO3
Spelling and grammatical errors	None	Few	Some	Many	Too many	x1	CLO3
Voice, pronunciation	Uses clear, audible voice with correct pronunciation	Clear voice; pronounces most words correctly	Soft voice, pronounces some words correctly	Low voice, pronounces many words incorrectly	Mumbles, incorrectly pronounces most words; difficult to follow	x1	CLO3
Eye contact	Maintains good eye contact	Appropriate	Occasional	Minimal	Lacking	x0.5	CLO3
Note/screen reading	None; speaks from understanding	Rarely	Occasionally	Mostly	Entirely	x0.5	CLO3
Able to respond to questions	Entirely	Most	Some	Few	None	x2	CLO4

GRADE SCALE

A-B	Passing grade with passing all CLOs (as assessed by the presentation evaluation rubric)
C-F	Non-passing grade
I-1	Complete the assigned work within one month after the grade is announced.
I-2	Complete the assigned work and retake the new evaluation within the next semester.
I-3	Repeat the course as soon as it is offered.

Appeal Procedure

- Any request about the course teaching and learning activities should be directed to the course coordinator.
- Otherwise, please follow the university's rules and regulations.