

Course Syllabus
SIPS 532
Academic Year 2025
Department of Physiology
Faculty of Medicine Siriraj Hospital, Mahidol University

Course ID and name:	SIPS 532 MEDICAL ENDOCRINE AND REPRODUCTIVE PHYSIOLOGY
Course coordinator:	Assoc. Prof. Suwattanee Kooptiwut, M.D., Ph.D.
Instructors:	Assoc. Prof. Suwattanee Kooptiwut, M.D., Ph.D. Assoc. Prof. Chantacha Sitticharoon, M.D., Ph.D.
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:	2/2025
Prerequisite:	None
Date of Latest Revision:/...../2025

Course Description:

Hypothalamic hormones, pituitary hormones, pineal hormones, growth hormones and prolactin, thyroid hormones, adrenal hormones, pancreatic hormones, adipokines, hormonal control of calcium metabolism; sex hormones, sex differentiation; female reproduction, menstrual cycle, menopause; male reproduction

Course-level Learning Outcomes (CLOs)

Upon completion of this course, students are able to:

1. Explain the mechanisms of normal function and control in the endocrine system of the human body.
2. Explain the mechanisms of normal function and control in the reproductive systems of the human body.
3. Describe how the body changes and what disorders or diseases might arise if the cells or organs in the endocrine system fail to function properly.

4. Describe how the body changes and what disorders or diseases might arise if the cells or organs in the reproductive system fail to function properly.

Constructive Alignment of CLOs and Program’s ELOs

CLOs	ELO1	ELO2	ELO3	ELO4
1. Explain the mechanisms of normal function and control in the endocrine system of the human body.	R			
2. Explain the mechanisms of normal function and control in the reproductive systems of the human body.	R			
3. Describe how the body changes and what disorders or diseases might arise if the cells or organs in the endocrine system fail to function properly.	R			
4. Describe how the body changes and what disorders or diseases might arise if the cells or organs in the reproductive system fail to function properly.	R		P	

Remarks: Show the level of the course management with the symbols I, R, P, and M.

Program’s Expected Learning Outcomes

1. Demonstrate the current medical physiological knowledge for common clinical application.
2. Evaluate the scientific research and major research developments.
3. Perform medical physiology research with a technique in an ethical way to test an idea or hypothesis in an area of interest.
4. Communicate knowledge and ideas of medical physiological research clearly to peers and the scientific community at national level.

Course Schedule and teaching/assessment plan

No.	Topic	Hours			CLOs	Teaching & learning strategy	Assessment (in-class)	Lecturers
		Lecture	Laboratory	Self Study				
1	Hypothalamic and pineal hormones	1	-	2	1	Live on-line / Asynchronous	Reflection / Examination	Dr.Chantacha
2	Growth hormones, growth factors and prolactin	1	-	2	1	Live on-line / Asynchronous	Reflection / Examination	Dr.Chantacha
3	ACTH and glucocorticoids	1	-	2	1	Live on-line / Asynchronous	Reflection / Examination	Dr.Suwattanee
4	Mineralocorticoids and adrenal medulla	1	-	2	1	Live on-line / Asynchronous	Reflection / Examination	Dr.Suwattanee
5	TSH and thyroid hormones	1	-	2	1	Live on-line / Asynchronous	Reflection / Examination	Dr.Suwattanee
6	Pancreatic hormones	1	-	2	1	Live on-line / Asynchronous	Reflection / Examination	Dr.Suwattanee
7	Hormonal control of calcium metabolism	1	-	2	1	Live on-line / Asynchronous	Reflection / Examination	Dr.Suwattanee
8	Endocrine	3	-	6	1	Live on-line	Reflection / Examination	Dr.Suwattanee, Dr.Chantacha

9	Male reproduction	1	-	2	1	Live on-line / Asynchronous	Reflection / Discussion / Examination	Dr.Chantacha
10	Female reproduction	2	-	4	1	Live on-line / Asynchronous	Reflection / Examination	Dr.Chantacha
11	Sex differentiation and hypothalamo-pituitary-gonadal axis	1	-	2	1	Live on-line / Asynchronous	Reflection / Examination	Dr.Suwattanee
12	Gonadotropins and sex hormones	2	-	4	1,3	Live on-site	Reflection / Discussion / Examination	Dr.Suwattanee, Dr.Chantacha
Total hours of the study		16		32				

Course Assignments

- Reading materials
- Homework to understanding in clinical apply
- Short reflection after each class

Assessment Criteria

- Two closed-book, essay-type examinations (internet prohibited) [70%]
- Two homework assignments [10%]
- Seminar discussion [10%]
- Attendance / participation [10%]

Appeal Procedure

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